

**PIKE ELECTRIC  
JOB SPECIFICATION  
SUBSTATION ENGINEER**

**Job Responsibilities**

Responsible for substation engineering including detailed physical design for high voltage substation projects through 500kv. Depending upon complexity of the project, the candidate may prepare, provide guidance, or assist in preparing and developing the engineering deliverables for electric substation projects - including physical general arrangements, electrical one-line, detailed physical layouts, selection of substation equipment, equipment & construction specifications, and all associated electrical calculations and studies. Calculations and studies include power system studies on utility and industrial/commercial electrical power transmission and distribution systems, including: stability (transient & dynamic), long/short range planning studies, short circuit, load flow, arc flash, motor starting, power factor, grounding analysis, insulation coordination, and other related studies. Detailed knowledge of power utilization equipment and application considerations including the various types of switchgear, protective relays, breakers, transformers, motors, and generators is required. Candidate will be responsible for working closely with other engineering and design team members to coordinate overall design package and requirements. Other duties include developing technical specifications, performing substation conceptual layouts, providing direction and guidance to drafters and designers, directing the flow of drafting and designer duties, insuring design schedules are met, including regularly providing project status updates to project engineer. Responsible for handling multiple projects and providing a detailed design package that complies with applicable substation engineering design standards and all safety codes.

**Qualifications**

**Hiring manager may fill the job with one of the following Engineer classifications dependent on candidate's qualification and skills.**

**Engineer 3**

*Classification Summary:* This is the third level of the Engineering classification. Provide engineering/technical expertise to solve more complex problems, and provide leadership skills to manage work in a specific area of expertise, with minimal supervision. Incumbents are expected to develop advanced skills and to have the ability to work independently.

*Duties & Responsibilities:* Under minimal supervision, in the area of expertise will provide:

- engineering/technical expertise and guidance in the identification, analysis and resolution of problems
- effective planning, organizing, estimating, scheduling and monitoring of work activities
- thorough and accurate technical reports, correspondence, documentation, calculations and sketches
- continuous improvement of job-related, engineering, technical and professional knowledge, skills and performance
- effective oral and written communication skills
- accurate records and files

*Required Qualifications:*

- Graduate of four year college or university with Bachelor of Science in Engineering; BSEE preferred.
- 8 to 10 years experience as a practicing engineer or state registration as a Professional Engineer.
- Proficient in engineering theories and principles.

- Proficient in practices of researching engineering and design issues, evaluating alternatives, making sound recommendations and preparing and presenting recommendations
- Ability to deal with a variety of individuals from various socio-economic, cultural and ethnic backgrounds.
- Good written and oral communication skills.

*Desired Qualifications:*

- Registered Professional Engineer
- Proficient in principles of project management
- Experience in the utility industry.

#### **Engineer 4\***

*Classification Summary:* This is the fourth level of the Engineering classification. Provide engineering/technical expertise to solve complex problems, and provide leadership skills to manage work in a specific area of expertise, with increased latitude for un-reviewed work. Incumbents are expected to have advanced skills and have the ability to work independently.

*Duties & Responsibilities:* With increased Latitude for Un-reviewed work, in the area of expertise will provide:

- coaches and mentors other Engineering professionals
- reviews work of subordinate Engineering professionals
- engineering/technical expertise and guidance in the identification, analysis and resolution of problems
- effective planning, organizing, estimating, scheduling and monitoring of work activities
- thorough and accurate technical reports, correspondence, documentation, calculations and sketches
- continuous improvement of job-related, engineering, technical and professional knowledge, skills and performance
- effective oral and written communication skills
- accurate records and files

*Required Qualifications:*

- Graduate of four year college or university with Bachelor of Science in Engineering; BSEE preferred.
- 8 to 12 years experience as a practicing engineer
- State registration as a Professional Engineer.
- Skilled in engineering theories and principles.
- Skilled in practices of researching engineering and design issues, evaluating alternatives, making sound recommendations and preparing and presenting recommendations.
- Ability to deal with a variety of individuals from various socio-economic, cultural and ethnic backgrounds.
- Good written and oral communication skills.
- Experience in the utility industry.

*Desired Qualifications:*

- Skilled in principles of project management

#### **Engineer 5\***

*Classification Summary:* This is the fifth level of the Engineering classification. Provide engineering/technical expertise to solve the most complex problems, and provide leadership skills to provide in a specific area of expertise, with wide latitude for un-reviewed work. Incumbents are expected to have advanced skills, work independently and are to be considered industry experts in their discipline or in a particular field.

*Duties & Responsibilities:* With latitude for Un-reviewed work, in the area of expertise will provide:

- coaches and mentors other Engineering professionals
- reviews work of subordinate Engineering professionals
- provides technical leadership and direction on a corporate or industry level in their field of expertise
- engineering/technical expertise and guidance in the identification, analysis and resolution of problems
- effective planning, organizing, estimating, scheduling and monitoring of work activities
- thorough and accurate technical reports, correspondence, documentation, calculations and sketches
- continuous improvement of job-related, engineering, technical and professional knowledge, skills and performance
- effective oral and written communication skills
- accurate records and files

*Required Qualifications:*

- Graduate of four year college or university with Bachelor of Science in Engineering; BSEE preferred.
- 15 years as a practicing registered Professional Engineer (PE)
- An expert in engineering theories and principles.
- An expert in the practices of researching engineering and design issues, evaluating alternatives, making sound recommendations and preparing and presenting recommendations.
- Ability to deal with a variety of individuals from various socio-economic, cultural and ethnic backgrounds.
- Excellent written and oral communication skills.
- Demonstrated leadership within the utility industry.

*Desired Qualifications:*

- Skilled in principles of project management.