

Supervising Protection & Control Engineer – Relay Settings

Company

Substation Engineering Company (SECO) is a full-service engineering and design firm delivering high-quality solutions to electric utilities nationwide. Our expertise spans substation, switchyard, transmission, and distribution projects, enhanced by advanced laser scanning and 3D modeling capabilities. We integrate strong engineering fundamentals with efficient, forward-thinking processes to deliver safe, reliable, and constructible solutions for critical infrastructure.

In partnership with Tier 1 Utility Design, Inc. (Tier 1), a certified woman-owned engineering firm, we cultivate a collaborative, engineering-driven environment where ideas are shared openly, challenges are addressed proactively, and technical excellence is the standard. Our team is committed to ownership, continuous improvement, and a supportive culture that values both professional growth and work–life balance.

Job Description

Main Duties

Senior level electrical engineering position focusing on the performance of both routine and complex activities and tasks related to the design of high voltage substations (15kV to 765kV).

Typical duties include (but are not limited to):

- Provides estimating, engineering, and design analysis for new and retrofit switchyard and substation projects up to 765kV.
- Designs and modifies relaying one-line and three-line diagrams, elementary schematics, relay panel layouts, wiring diagrams, and AC/DC auxiliary systems for substation protection & control projects.
- Develops Bill of Materials based on design criteria.
- Supports SCADA and RTU interfaces related to protection and control.
- Performs engineering calculations including short-circuit, voltage drop, and circuit ampacity calculations in support of protection and control designs.
- Provides protection engineering and relay settings development using industry-standard software such as ASPEN OneLiner, CAPE, and CYME. Typical responsibilities include:
 - Review of power system models for accuracy and completeness
 - Modeling of power system elements (i.e., transformer, fuses, relays, transmission, or distribution line parameter)
 - Calculation of relay setpoints for various protection schemes
 - Relay coordination studies
 - Development of relay configuration and setting files
 - Development of relay logic and protection schemes
- Monitors budget, schedule and deliverables for assigned tasks.
- Works in a multidisciplinary team environment, coordinating requirements with other engineering disciplines and project stakeholders.
- Provides technical direction to junior engineers and designers.

- Ensures quality assurance and compliance of all deliverables with applicable company, client and industry standards.

Desired Education, Experience and Training

- BSEE or MSEE.
- Professional Engineering (PE) license preferred.
- 5+ years of progressively responsible experience in protection and control engineering with a thorough knowledge of applicable theories, practices and accepted procedures, particularly in the area of relay settings.
- Experience with CAPE, CYME and ASPEN software.
- Ability to quickly develop broader knowledge through performing structured functional assignments, such as collecting and analyzing data related to specific tasks.
- Independently works through individual projects and/or takes the lead role in broader projects.
- Computer proficiency required as well as strong analytical and problem solving skills.
- Accuracy and attention to detail as well as ability to meet deadlines and complete assignments.
- Strong written and verbal communication skills in English.
- Commitment to customer service and ability to work in a team-oriented environment.

Full Benefit package

- Medical/Dental/Vision
- Paid Holidays
- PTO (Paid Time Off)
- Group Life Insurance/LTD/AD&D
- 401K
- Voluntary Benefit Plans
- Paid Parental Leave

Position Classification/Compensation

- Exempt
- Competitive pay structure