



Utilities Commission, City of New Smyrna Beach
Job Specifications

Electrical Engineer

Revised 10/2015

Department: Engineering

Pay Grade: 29

Reports To: Engineering Manager

Status: Non-Union / Exempt

Job Summary

This is a professional position providing electrical engineering and support to the UC's electric, water, reuse, and pollution control utility operations and planning for short and long-term system growth. Under the direction of the Engineering Manager, this position works with operating department personnel in the planning and execution of the electrical engineering requirements of the UC's operating systems. This position serves as representation to various regulatory agencies, trade organizations, and other utilities with which the UC has an ongoing relationship. This position provides guidance to technical personnel employed or engaged by the UC in the Engineering Department.

Essential Duties and Responsibilities

Include the following and other duties as assigned:

Manages electrical and generation related projects.

Provides engineering assistance for operations in the design, maintenance, and installation of relays, breakers, fuses, and other protective devices in the electric system, including protective relay schemes for transmission, distribution, and generation.

Project management of C.I.P., including preconstruction activities, shop drawing review and acceptance, inspection coordination, update meetings, coordination with contractors and other UC departments, collect project close-out documents, pay application review, substantial completion and final completion determination, respond to contractor requests for information, and resolve field discrepancies.

Calculates fault currents, load flows, and relay settings for the electric system.

Prepares construction plans and specifications for electrical projects.

Reviews and/or designs panels and control schemes for electrical, water, reuse, and pollution control systems.

Designs proposed UC electric facilities to enhance customer service and provide service to new residential and commercial customers.

Provides information in response to questionnaires and submittals pertaining to generation requirements, planning, loads, future growth, and other planning information.

Responds to requests from ratepayers for street lights, solar systems, and other utility programs.

Competencies

To perform the job successfully, an individual should demonstrate the following competencies:

Professional Knowledge

Possesses and applies a thorough knowledge and understanding of electrical engineering best management practices and theories used in practice; may have the thorough knowledge to oversee projects which require an engineering specialty; works independently with minimal day-to-day supervision; applies working level understanding of the organizational and business objectives of electrical engineering.

Project Management

Evaluates and recommends approval for moderately complex project plans and specifications for completeness, compatibility, compliance with engineering principles, standards, codes, and design needs; performs inspections/audits to ensure that proper procedures are followed; manages moderately complex projects for completeness, compatibility, and compliance with engineering principles, design needs, and standards; identifies and resolves project changes; develops, communicates, and justifies moderately complex projects; ensures projects stay within budget and schedule.

Review, Analysis, and Decision Making

Makes recommendations and may make decisions on non-routine engineering and/or project matters or other areas requiring technical engineering expertise; provides technical analysis; may approve routine engineering designs and/or project specifications of other engineers to meet desired compliance with engineering principles, standards, codes, designs, and statutes; addresses conflicting design constraints.

Communication

Expresses moderately complex engineering concepts and related facts in a clear, concise, and organized manner; modifies delivery, language, or content to account for the characteristics and needs of the audience; writes clear, concise, and organized documents, and reports addressing moderately complex engineering concepts and facts; develops and negotiates scope of work for moderately complex engineering projects in conjunction with Engineering Manager; provides consultation to others related to the specific project; develops and/or creates informational reports.

Design

Applies mathematical, physical, and engineering sciences to engineering projects, creative work, investigation, evaluation, planning, and design; may approve design changes; researches, collects, and/or analyzes information/data which contributes to making engineering decisions; monitors and ensures projects meet specifications and/or design standards.

Leadership

Develops and manages project schedule; provides consultation to operations on issues and requests; consults with higher-level professionals to discuss alternative solutions; develops and implements short-term strategies consistent with company goals.

Ethical Practice

Integrates core values, integrity, and accountability throughout all practices; adheres to the UC's Code of Ethics and Conflict of Interest Policy at all times, as well as the Engineering Code of Ethics; demonstrates accountability for actions; identifies potential conflicts of interest; follows policies consistently.

Knowledge, Skills, and Abilities

To perform successfully, an individual must be able to perform each essential duty satisfactorily. The requirements below represent the knowledge, skills, and/or abilities required. Reasonable accommodations may be made to individuals with disabilities to perform the essential functions of this position.

Language Skills

Ability to read, analyze, and interpret documents, such as general business periodicals, professional journals, technical procedures, and/or governmental regulations; ability to write reports, business correspondence, and procedure manuals; ability to effectively present information and respond to questions from groups of managers, customers, contractors/vendors, and employees of the U.C.

Mathematical Skills

Ability to work with mathematical concepts, such as probability and statistical inference, and fundamentals of plane and solid geometry and trigonometry; ability to apply concepts, such as fractions, percentages, ratios, and proportions to practical situations.

Reasoning Ability

Ability to solve practical problems and deal with a variety of concrete variables in situations where only limited standardization exists; ability to interpret a variety of instructions furnished in written, oral, diagram, or schedule form.

Computer Skills

Ability to use and understand all the computer systems/programs that are required for this position, including possessing knowledge of Microsoft and AutoCAD; knowledge of GIS is valuable.

Physical Demands

The physical demands described here are representative of those that must be met by an employee to successfully perform the essential functions of this position. Reasonable accommodations may be made to enable individuals with disabilities to perform the essential functions of this position.

While performing the duties of this position, the employee is regularly required to sit. The employee is occasionally required to stand; walk; climb or balance and stoop, kneel, crouch, or crawl. The employee must occasionally lift and/or move up to 25 pounds.

Education and Experience

This position requires the following education and experience:

Bachelor of Science in Electrical Engineering **required**. Study emphasis in power is preferred. A minimum of five years of experience in electrical engineering **required**.

Certifications, Licenses, Registrations

This position requires the following certifications, licenses, and/or registrations:

None

Other Qualifications

Florida Driver's License Class E **required**. Ability to work flexible hours, as required.