

JOB DESCRIPTION



ELECTRICAL ENGINEERING TECHNICIAN III

(Journey Level)

DEFINITION

Under general supervision, to perform a variety of sub-professional office and field engineering work in the planning, design, construction, operation, and maintenance of an electrical distribution system; to assist other engineering staff in the performance of office and field engineering work; and to perform related work as assigned.

The Electrical Engineering Technician III is the skilled class in this sub-professional engineering series. An increased level of experience, expertise and responsibility is required above the Electrical Engineering Technician I and II positions, which demonstrates a journey level of proficiency.

EXAMPLES OF DUTIES: (These examples are intended only as illustrations of the various types of work performed. The examples of work performed are neither restricted to or all-encompassing of the duties to be performed under this job title.) **(E = Essential Duty; M = Major Portion of Time)**

- Research, procure, implement and maintain an Asset Maintenance Management System (MMS) using vendor supplied computer software that allows for the creation of work requests and work orders, recording of equipment maintenance histories and tracking of department man-hours, as it relates to infrastructure maintenance activities. **(E-M)**
- Interface with the MMS vendor for software upgrades. **(E)**
- Train Utility Department personnel on the use of the MMS on an individual basis and in a classroom setting. **(E)**
- Maintain the Utility Department "Supervisory, Control and Data Acquisition" (SCADA) system and database. **(E-M)**
- Interface with the SCADA vendor for troubleshooting and software upgrades. **(E)**
- Develop and maintain Electric Department standards for new and existing installations. **(E)**
- Maintain the Geographical Information System (GIS) for new and existing installations. **(E)**
- Maintain Electric system mapping and facilities maps and databases.
- Prepare detailed plans, specifications, and cost estimates in connection with the construction, maintenance, or removal of a variety of electrical facilities such as service drops, line extensions, transformers, meters, switch gear, and street lighting.
- Determine proper wire sizes and metering equipment.
- Determine transformer sizes and combinations for given loads on the distribution system.
- Maintain electrical and traffic system maps and records.
- Obtain easements for electric system facilities.
- Inspect the installation of electrical substructures and equipment.
- Respond to citizen complaints and questions.
- Coordinate electrical distribution system, traffic signal, and street lighting activities with other City departments and divisions, and with outside agencies.
- Other duties and special assignments, as assigned.

QUALIFICATIONS

Knowledge of:

- Computerized Asset Maintenance Management Systems.
- Supervisory Control and Data Acquisition (SCADA) Systems.
- Standards, methods, materials and equipment used in the construction, operation, and maintenance of an electrical distribution system.
- Fundamentals of electrical engineering.
- Safety practices and regulations.
- Mathematics including algebra, geometry, and trigonometry.

- Methods and tools of drafting.
- Computer applications, including Computer Aided Drafting and Design (Autocad, Genericad).

Ability to:

- Train others (subordinates, peers, supervisors) on new and existing technologies.
- Interface with vendors on implementation of new technologies.
- Review plans and documents for conformance to regulations.
- Gather data and make accurate engineering computations.
- Prepare plans and specifications, neatly and accurately.
- Prepare and carry out oral and written instructions with minimum of supervision.
- Establish and maintain cooperative relationships with those contacted in the course of work.
- Lift and carry twenty-five (25) pounds on occasion.
- Tolerate changes in outside temperature from winter to summer and tolerate dust, pollen, wind and rain.
- Sit or stand for long periods of time.
- Walk on uneven or steep ground.

Experience:

Minimum of six years of increasingly responsible experience in the construction, operation, and maintenance of an electrical distribution system; Prior experience with computerized Asset Maintenance Management and/or Supervisory, Control and Data Acquisitions (SCADA) systems preferred, but not required.

Education:

Equivalent to completion of the twelfth grade, including or supplemented by courses in basic electricity, algebra, geometry, and trigonometry.

Necessary Special Requirement:

Possession of a Class C California Driver's License.

Residency Requirement:

All members of the Electric Unit shall be expected, within six months of hire, to establish residence allowing response to the Electric Shop within 35 minutes of notification to report.

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