

SENIOR POWER ENGINEER

DEFINITION

To plan, organize, direct and supervise the work of assigned personnel engaged in performing professional electrical engineering work in the design, investigation, and construction of electric utility projects; to perform duties requiring specialized knowledge; and to provide administrative support to assigned supervisor.

DISTINGUISHING CHARACTERISTICS

This is the advanced journey level in the Power Engineer series. Positions at this level are distinguished from other classes within the series by the level of responsibility assumed, complexity of duties assigned, independence of action taken, by the amount of time spent performing the duties, and by the nature of the public contact made. Employees perform the most difficult and responsible types of duties assigned to classes within this series, including first-line supervisory responsibilities over assigned personnel, and perform complex professional engineering work in the design, investigation, and construction of electric utility projects. Employees at this level are required to be fully trained in all procedures related to assigned areas of responsibility.

SUPERVISION RECEIVED AND EXERCISED

Receives direction from the Electric Engineering Manager.

Exercises direct supervision over lower level professional and technical staff.

EXAMPLES OF ESSENTIAL DUTIES - Duties may include, but are not limited to, the following:

Plan, prioritize, assign, supervise and review the work of professional staff assigned to design, investigate, and construct electric utility projects.

Design and prepare plans and specifications for the construction of electric transmission, distribution and substation projects; research project design requirements; perform calculations and prepare estimates of time and material costs.

Delegate routine research, design, and drafting tasks to technical staff; review completed work and identify solutions for solving design, construction and maintenance and operational problems; research publications and industry information sources as needed.

Maintain the Electric Department's circuit loadflow and analysis program; prepare short circuit, loadflow and coordination studies; review switching schedules of complex load transfers; monitor system power factor reports.

Recommend capacitor installation and prepare capacitor control settings to maintain system power factor; review switching schedules of complex load transfers.

Prepare requests for bids and proposals; review bids and proposals, recommend award of contracts and monitor progress of capital improvement projects and professional services contracts; prepare equipment specifications and recommend installation; prepare job packages for line construction.

Prepare estimates and feasibility reports for new or modified electrical transmission, distribution and substation projects; prepare substation regulator settings.

Prepare conduit and feeder master plans for the City-wide electric distribution system; prepare relay settings; identify system supervisory control and data acquisition (SCADA) requirements.

Oversee construction work in progress and inspect projects for various capital improvement projects; conduct fault investigation; perform testing for acceptance of work and equipment.

Respond to distribution, transmission and generation system outages and emergencies.

Participate in the selection of staff; provide or coordinate staff training; work with employees to correct deficiencies; implement discipline procedures.

Perform the most difficult work related to professional electrical engineering duties including overseeing complex and/or large capital improvement and maintenance improvement projects, and preparing complex plans and specifications.

Build and maintain positive working relationships with co-workers, other City employees and the public using principles of good customer service.

Perform related duties as assigned.

MINIMUM QUALIFICATIONS

Knowledge of:

Principles and practices of supervision, training and performance evaluations.

Principles and practices of professional electrical engineering as applied to the design and construction of electric utility facilities.

Project management, including cost estimating and budget monitoring and control.

Pertinent local, State, and Federal codes, regulations, and laws, and electric utility industry standards.

Ability to:

Provide technical and functional supervision over assigned staff; effectively train staff.

Perform the most complex duties related to the design, investigation, and construction of electric utility projects.

On a continuous basis, know and understand all aspects of the job; intermittently analyze work papers, reports and special projects; identify and interpret technical and numerical information; observe and problem solve operational and technical policy and procedures.

On a continuous basis, sit at desk for long periods of time; intermittently bend, squat, climb, kneel or twist while performing field work; intermittently twist to reach equipment surrounding desk; perform simple grasping and fine manipulation; use telephone, and write or use a keyboard to communicate through written means; and lift or carry weight of 10 pounds or less.

Prepare complex engineering plans and specifications.

Prepare complex engineering computations.

Communicate clearly and concisely, both orally and in writing.

Establish and maintain effective working relationships with those contacted in the course of work.

Supervise, train and evaluate assigned staff.

Experience and Training

A typical way to obtain the required knowledge and abilities would be:

Experience:

Three years of responsible journey level experience performing duties similar to an Power Engineer with the City of Roseville.

AND

Training:

Equivalent to a Bachelor's degree from an accredited college or university with major course work in Electrical Engineering or a related field.

License and Certificate:

Possession of, or ability to obtain, a valid California drivers' license.

Possession of a certificate of registration as a Professional Engineer in the State of California.

12-19-13

02-09-13

05-10-01 Senior Power Engineer