

## COMMUNICATIONS ENGINEER, 7610

Summary of Duties : Assigns, reviews, and evaluates the work of employees engaged in communications engineering, or related professional work, including the preparation of designs, specifications, estimates, and reports associated with the planning, design, installation, testing, operation, and maintenance for cable television, radio, radiotelephone, microwave, alarm, data, signal, telephone, teletype, wireline, and other communications facilities, and may personally perform such work; applies sound supervisory principles and techniques in building and maintaining an effective work force; fulfills affirmative action responsibilities; and does related work.

Distinguishing Features : The work of a Communications Engineer is primarily involved with the engineering design and installation of communication systems, and with the long range planning for such systems. A Communications Engineer's concern with the design of communications systems is normally limited to determining the task which must be accomplished by each component in a proposed system, the operating characteristics of the components under various conditions of use, and their suitability for different types of systems.

Incumbents in the class of Communications Engineer, as bona fide supervisors, are distinguished from lead workers in that they are responsible for the performance of the full range of supervisory activities including: application of discipline, processing and resolution of grievances, evaluation of performance, and approval of time off requests.

Assignments are received in terms of desired objectives, and detailed procedures are normally the responsibility of the Communications Engineer. Communications engineering work requires continuing relationships with and coordination among several City departments; consequently an employee of this class must exercise good judgement and tact.

Examples of Duties : Plans, organizes, supervises, and conducts the analysis and design of communication systems and the configuration of their appurtenant equipment; prepares plans, diagrams, and specifications for cable television, fixed and mobile radio, data, microwave, electronic, wire, and other communications systems and equipment; prepares recommendations, reports, and cost estimates on proposed communication systems and on improvements to existing systems and operations; formulates procedures for the installation, operation, and testing of cable television, radio, wire, and other communications systems and equipment; inspects completed installations for conformance to plans and specifications and to assure satisfactory operation of equipment;

Makes recommendations concerning the acceptance of bids for communications equipment; consults with representatives of

communications equipment suppliers concerning bids, contracts, changes in design of components, and use and installation problems; coordinates engineering design services contracted with outside agencies and oversees the installation, testing, and acceptance of contracted and franchised communication systems;

Prepares or assists in preparation of reports related to long range planning for policy decisions concerning City communications systems; advises and assists City departments in matters pertaining to cable television, radio, wire, and other communications systems, including electronically-controlled traffic signals, remote control, and telemetering systems; advises agencies included in the local Civil Defense communications network on licensing requirements and technical radio communications matters; prepares applications for new and renewal of permits and licenses necessary to implement communication systems, sites, and structures; ensures compliance by contracted and franchised communication systems to City ordinances and departmental regulations; prepares and submits evidence to regulatory and other governmental agencies to secure favorable rulings affecting communications facilities;

Communicates equal employment/affirmative action information to employees; applies job-related criteria in selecting, orienting, assigning, training, counseling, evaluating, and disciplining subordinates; assists employees in preparing for promotion as described in the City's Affirmative Action Program; acts for a Division Head as instructed or during the latter's absence; and may occasionally be assigned other duties for training purposes or to meet technological changes or unexpected emergencies.

Qualifications : A good knowledge of the principles and practices of communications engineering as applied to the development, design, installation, improvement, maintenance, and operation of varied communications facilities, including alarm, signal, data, radio, electronic, microwave, telephone, teletype, broadcast and cable television, and overhead and underground wireline system facilities; a good knowledge of the sources of communications engineering information and developments in the field; a good knowledge of various communications system components, including their purpose and operating characteristics; a good knowledge of test equipment, including its uses and applications;

A good knowledge of the operating policies and licensing requirements of regulatory agencies, including the Federal Communications Commission, Federal Aviation Administration, and the State Public Utilities Commission, pertaining to municipal communications facilities, including those for emergency services; a good knowledge of leased communications services and

facilities and the tariff schedules governing their price and use; A good knowledge of supervisory principles and practices including : planning, delegating, and controlling the work of subordinates; a good knowledge of techniques of training, instructing, and evaluatin g subordinate work performance; a good knowledge of techniques fo r

counseling, disciplining, and motivating subordinate personnel; a good knowledge of the procedures for grievance handling; a good knowledge of supervisory responsibility for EEO/AA as set forth in the City's Affirmative Action Program; a good knowledge of effective safety principles and procedures;

A working knowledge of the procedures used in hearings before regulatory bodies concerned with communications; a working knowledge of budgetary and other administrative procedures; a working knowledge of memoranda of understanding as they relate to subordinate personnel; a general knowledge of City personnel rules, policies and procedures;

The ability to design cable television, radio, electronic, wire, and other communications systems; the ability to determine from reports, tests, and inspections the source of malfunction in cable television, radio, wire, and other communications systems and to prescribe remedial action;

The ability to prepare briefs, exhibits, and other evidence for hearings before regulatory bodies; the ability to prepare reports and correspondence and to supervise the preparation and maintenance of operating records;

The ability to establish and maintain a work environment to enhance both employee morale and productivity; the ability to apply sound supervisory principles and techniques; the ability to fulfill supervisory affirmative action responsibilities as indicated in the City's Affirmative Action Program; and the ability to deal tactfully and effectively with representatives of other governmental agencies, employees, and the public.

Graduation from a school of engineering in a recognized four-year college or university or the possession of a valid Engineer-in-Training Certificate recognized by the California State Board of Registration for Professional Engineers and four years of professional engineering experience in the design, construction, installation, operation and repair of communications systems and equipment, two years of which was in a class at the level of Communication Engineering Associate, are required.

License: A valid California driver's license is required.

Physical Requirements: Strength to perform average lifting of less than five pounds and occasionally over 15 pounds; frequent walking and standing; good eyesight; and good speaking and hearing ability.

Persons with medical limitations may, with reasonable accommodations, be capable of performing the duties of some of the positions in this class. Such determination must be made on an individual basis in light of the person's limitations, the requirements for the position, and the appointing authority's ability to effect reasonable accommodations to the person's limitations.

As provided in Civil Service Commission Rule 2.5 and Section 4.55 of the Administrative Code, this specification is descriptive , explanatory, and not restrictive. It is not intended to declar e what the duties and responsibilities of any position shall be.