

Summary of Duties: Performs difficult and responsible professional engineering and administrative work in supervising the preparation of plans, design specifications, contracts, legislative reports and procedures for the various components of the power generation, transmission, distribution, and operation activities of the Department of Water and Power; may serve as the administrator and technical head of a project of the Power System;

Distinguishing Features: The class of Senior Power Engineer is distinguished from other engineering classes by its interdisciplinary nature centered around the engineering, construction, operation, and maintenance activities of the Power System of the Department of Water and Power. Incumbents must deal with technical and administrative problems requiring coordination of mechanical, electrical, civil, structural, architectural and environmental engineering activities.

A Senior Power Engineer is distinguished from lower level engineering classes by the administrative and highly difficult professional engineering duties of the class. A Senior Power Engineer is usually in direct technical and administrative charge of an important power design, construction, operation, or maintenance unit and may act as an executive assistant or as a staff assistant to the head of a large unit. Incumbents receive assignments in general terms, delegate details to subordinates, and are concerned mainly with the fundamental aspects of planning, design, construction, maintenance, testing, or operation, the review of completed work, and the solution of unusual problems.

Examples of Duties: Directs the design of mechanical, electrical, structural, and/or civil components of power system structures and facilities; directs engineering groups performing long range forecasts of electrical load and peak demand requirements; directs the preparation of resource plans and the conduct of power system planning studies as necessary for system development; directs and participates in the preparation and revision of engineering analyses, reports, and schedules related to power system project design and construction; coordinates the execution of design and construction work for approved plans and coordinates related service activities in both project and non-project work; directs procurement of materials and equipment for construction;

Directs the preparation of designs, specifications, estimates, procedures, and special studies for inspection, repair, and testing of power plans, automotive, and construction equipment; directs the preparation of designs, specifications, and cost estimates for the extension of overhead and underground distribution systems; schedules and directs the construction and maintenance of overhead and underground distribution lines, extensions, and equipment;

Reviews and analyzes Power System engineering and design plans and

specifications to determine possible environmental impact; coordinates Power System environmental matters with Department personnel and outside agencies and organizations; represents the Power System on environmental issues; directs the preparation of financial planning and electric rate studies; directs the activities of operating engineering personnel involved in contract administration, scheduling, fuel studies, and coordination with other utilities;

Directs the planning, design, construction, operation, and maintenance of the communication system for the Department of Water and Power; plans, coordinates, and directs the activities of the Power System Testing Laboratories; directs activities related to the operation and maintenance of converter station facilities; directs the operation and maintenance activities of the energy control system;

Receives and analyzes assignments, distributes them among subordinates, and suggests methods of approach; prepares and reviews operating reports; directs preliminary tests and operation and approves recommendations for changes; recommends system additions and changes; may represent the Department on committees established to operate power plant and related facilities that are jointly owned with other utilities; may act as staff assistant to higher level engineers in planning and directing major system activities; may prepare or assist in the preparation of budgets; may personally perform special studies on significant issues;

Coordinates the processing of city, state, and federal legislative matters of interest to the Department; directs the examination and analysis of proposed legislation to identify possible effects upon the Department; directs the arrangement of meetings of legislators and government officials with Department representative to discuss proposed and pending legislation; directs the preparation of reports to inform management and the Board of attitudes, purposes and actions of governmental authorities and agencies; and may occasionally be assigned to other duties for training purposes or to meet technological changes or emergencies.

Qualifications: A good knowledge of the engineering principles and practices as applied to the planning, design, construction operation, testing, and research activities of a large utility, including generation, transmission and distribution of electric energy; a good knowledge of principles and practices of administration and organization including planning, budgeting and personnel administration; a good knowledge of engineering economics and sources of engineering information; a good knowledge of California Environmental Quality Act and related City guidelines; a working knowledge of California State Legislative procedures relating to laws and proposed legislation concerning public utilities; a working knowledge of Charter provisions, policies, rules, and procedures affecting Power System operations; a working knowledge of the organization and functions of the Power System; a working knowledge of the laws and regulations related to equal employment opportunity and affirmative action; a general knowledge of City personnel rules and

regulations; a general knowledge of Memoranda of Understanding as they apply to subordinate personnel; the ability to take charge of the engineering investigation, design, purchasing and construction of large and important projects or operating activities of the Power System; the ability to direct and review the work of a group of engineers and other employees and to coordinate it with an overall program; the ability to evaluate alternate proposals in relation to technical soundness, economic aspects, and long term planning; the ability to prepare and supervise the preparation to technical and/or administrative reports; and the ability to negotiate and to deal tactfully and effectively with local, state and federal officials, contractors, and general public, consulting engineers, and representatives of the Department, other governmental units, and utilities.

Two years of experience as a professional engineer in supervising the planning, design, construction, operation, or maintenance of power utility systems in a class which is at least at the level of Electrical Engineer is required for Senior Power Engineer.

License: Registration as a Professional Engineer with the California State Board of Registration for Professional Engineers is required. Individual positions in this class may require registration in a specific engineering discipline.

A valid California driver's license and a good driving record may be required.

Physical Requirements: Strength to perform average lifting of less than 5 pounds and occasionally over 15 pounds; good speaking and hearing ability; and good eyesight.

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 of the position, and the appointing authority's ability to effect reasonable accommodations to the 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 declare what the duties and responsibilities of any position shall be.