



THE METROPOLITAN WATER DISTRICT
OF SOUTHERN CALIFORNIA

OPERATIONS PLANNING PRINCIPAL ENGINEER

Group-Section: Water System Operations Group - Water Operations and Planning Section	FLSA Status: Exempt Bargaining Unit: MAPA	Salary Grade: 064 Job #: 115
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JOB SUMMARY

Responsible for various power and energy operating issues of electric systems, system study review, and analysis and overseeing the general progress of energy and power related Capital Improvement Projects. Areas of responsibility include power operating activities of power and electrical facilities; provision of operating guidelines for transmission lines and generating and pumping facilities; liaison with interconnecting power utilities, federal, and state commissions and councils on power system operating issues; and energy planning and usage management of all treatment and pumping facilities within the distribution system.

OVERSIGHT

Supervision Received: Receives general direction from the Team, Unit, Section, or Group Manager.

Supervision Given: May exercise technical and/or functional direction over assigned staff.

JOB DUTIES

1. Manages and supervises power operating activities of the power and electrical facilities; manages the retail energy requirements, usage, and rate tariff analysis; and studies, plans, and implements energy saving and other load interruptible programs including the engineering design and installation of equipment.
2. Provides retail energy cost projection and studies for use in utility budgeting and development of the water rate structure; provides power system operating guidelines for transmission lines and generating and pumping facilities; and analyzes and implements operating criteria for application to operations in compliance with electric utility guidelines and regulations.
3. Analyzes power system studies and provides directions in power protection, interconnecting operations, system restoration, and transmission line operations; and conducts power system analytical improvement studies and provides technical recommendations in the electrical system operating areas to engineering in the planning and design of new facilities.
4. Assumes administrative responsibility for various power management system projects; recommends and administers policies and procedures; and develops and recommends goals, objectives, policies, procedures, and quality assurance standards for the projects.

5. Conducts research related to the projects to determine impact of decisions; prepares findings and develops recommendations in support of goals and objectives; monitors and evaluates the efficiency and effectiveness of project administration and service delivery methods and procedures; and allocates resources accordingly. Participates in the development and administration of the project budget; forecasts funds needed, approves expenditures, and implements budgetary adjustments as appropriate and necessary. Prepares, reviews, and controls project schedules, activities, and operations; prepares and distributes correspondence as related to project operations; leads and participates in project team assignments; and ensures accuracy and efficiency of work performed.
6. Performs and reviews project controls including progress, cost forecasting, variances, change management, scheduling, and close-out procedures; and maintains master schedules and informs management of potential scheduling conflicts.
7. Initiates specified correspondence independently for signature by appropriate project management staff; reviews finished materials for completeness, accuracy, format, and compliance with project quality standards and procedures.
8. Performs other related duties as required.

EMPLOYMENT STANDARDS

MINIMUM QUALIFICATIONS

Education and Experience: Bachelor of science degree in electrical engineering from an accredited college or university and ten years of increasingly responsible experience, of which two years must have been at the Senior Engineer level.

Required Knowledge of: Electrical operations of power systems; general operations of water delivery and distribution systems and the interface with the energy requirements and hydroelectric generation; power system protection engineering; power transmission line operations; energy usage management, planning, and energy rate schedules; electric utility practices; energy market and the electricity industry; training methods and techniques; principles of engineering design; project management; budgetary concepts and procedures construction techniques; safety regulations; relevant federal, state, and local laws; contract administration; and value engineering.

Required Skills and Abilities to: Resolve complex electrical engineering problems; perform complex power system studies; interact with utilities and agencies to negotiate problem resolutions; plan and organize project work; review work products for detail and adherence to existing guidelines; negotiate project or contract changes; interpret and analyze results; exercise judgment and discretion; operate computer equipment and use a variety of computer software packages to include but not limited to word processing and spreadsheets; encourage and facilitate cooperation; communicate effectively both orally and in writing on administrative and technical topics; represent Metropolitan to public agencies, regulatory bodies, special interest groups, and members of the public; and establish and maintain effective working relationships with coworkers, other agencies, regulatory agencies, and the public.

CERTIFICATES, LICENSES, AND REGISTRATIONS REQUIREMENTS

Certificates

- None

Licenses

- Valid California Class C Driver License
- License in good standing as a California Professional Electrical Engineer

Registrations

- None

DESIRABLE QUALIFICATIONS

None

PHYSICAL DEMANDS/WORK ENVIRONMENT

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

Physical Demands: The work is sedentary. Typically, the employee may sit comfortably to do the work. However, there may be some walking; standing; bending; carrying of light items such as paper, books, or small parts; driving an automobile, etc. No special physical demands are required to perform the work.

Work Environment: The work environment involves everyday risks or discomforts that require normal safety precautions typical of such places as offices, meeting and training rooms, libraries, and residences or commercial vehicles, e.g., use of safe work practices with office equipment, avoidance of trips and falls, observance of fire regulations and traffic signals, etc. The work area is adequately lighted, heated, and ventilated. May travel to various sites requiring overnight stay.

Vision Requirements: No special vision requirements