



THE METROPOLITAN WATER DISTRICT
OF SOUTHERN CALIFORNIA

POWER LINE SPECIALIST

Group-Section: Water System Operations - Various	FLSA Status: Non-Exempt Bargaining Unit: AFSCME	Classification: Operations and Maintenance Specialist Salary Grade: 48 Job #: T06
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JOB SUMMARY

Utilizes specialized advanced journey level skills, experience, and knowledge in the practices, procedures, and methods of large-scale high-voltage transmission and distribution power line maintenance and improvement, including safety practices, regulations, rules, and policies applicable to powerline work, electrical services, structures and along right-of-ways, including street lighting, microwave and telecommunications infrastructure for the effective communications as well as control and movement of water and electric power.

Maintains, improves, and constructs overhead and underground electrical transmission and distribution systems associated with pump plants, hydroelectric plants, and treatment plants including large-scale water and electrical conveyance and distribution infrastructure.

SUPERVISION:

Received:

Work is performed with intermittent on-site and self-requested supervision. Broad direction is given in terms of operations and maintenance objectives and may require self-initiated work planning, sequencing and coordination of material and tool resources. Limited detailed guidance and advice is available which may result in the modification of work in varied situations. Performance may be measured by the quantity and quality of work and operations and maintenance objectives.

Receives oversight from the Team, Unit, Section, Assistant Group, or Group Manager.

Given:

As a lead may exercise technical and/or functional direction over assigned staff.

Provides on-the-job training and development of O&M Technicians I, II, III and IV through joint tasks, recommending classroom training, hands-on demonstration, and/or assisting in the development and implementation of training programs.

JOB DUTIES

1. Performs specialized and high-level maintenance and construction tasks and activities associated with electrical transmission and distribution infrastructure including high-voltage systems (120 volt to 230 KV) both overhead and underground, in and around hydroelectric plants, pumping plants, treatment plants, and other water/electrical distribution facilities and rights-of-way.
2. Performs hot stick work on 230kv transmission systems and rubber glove distribution systems up to 7200 volts to accomplish maintenance and construction tasks and ensure power reliability.
3. Exhibits advanced abilities to apply and guide others in adhering to safety practices and regulations associated with mechanical and electrical equipment including high-voltage systems, hazardous materials, tools, and equipment.

4. Completes predictive, preventive, and corrective maintenance associated with transmission lines, poles, and tower infrastructure such as insulators, hardware, fuse holders, and arrestors to ensure service reliability.
5. Utilizes specialized skills in safely accomplishing switching and clearance operations necessary for routine operational changes, maintenance, and/or emergencies.
6. Performs specific maintenance and construction activities associated with electrical systems, including replacing, splicing and/or running new lines with associated hardware, repair or installation of conduit, vaults, duct systems, buses, switches, transformers, streetlights, poles, towers, and similar supporting structures up to 200 feet in height.
7. Utilizes advanced instrumentation to test, calibrate and monitor the capabilities, limits, and effectiveness of electrical transmission and distribution systems.
8. Performs varied installation of telecommunications equipment including microwave dishes, phone cables, fiber optic cables and transmitters on towers or other supporting structures up to 200 feet in height, as well as termination of associated cables or lines.
9. Assists with the planning and coordination of scheduled predictive maintenance, preventive maintenance, corrective maintenance, as well as response to unplanned outages, shutdowns, or other emergency situations to minimize equipment downtime or interruption in service.
10. Operates heavy equipment associated with powerline maintenance and construction.
11. Ensures all appropriate administrative duties, such as maintenance and operations reporting and timekeeping, are completed.
12. Performs thermographic imaging assessments of electrical systems and equipment.
13. May act as a lead over crews when performing high voltage switching.
14. May lead or assist with urgent or routine repairs, upgrades, or operations of high-voltage equipment or switching in or around pump plants, hydroelectric plants, or treatment plants.
15. Gathers information, generates, and delivers verbal or written reports to management and internal stakeholders.

**EMPLOYMENT STANDARDS
MINIMUM QUALIFICATIONS**

Education and Experience:

High school diploma or GED in addition to 2 years journey-level experience in electrical hot line maintenance.

Required Knowledge of: Theories and practices of electricity and its application to operation and maintenance of equipment related to high-voltage power transmission and distribution systems, California Public Utilities Commission General Orders 95/128 and contained rules associated with constructing and maintaining overhead and underground electrical and communication systems, application of high-voltage switching orders, Cal/OSHA, OSHA, and other Federal and State rules and regulations.

Required Skills and Abilities to: Understand and interpret electrical and mechanical engineering data and complex schematic diagrams necessary to implement predictive, preventive, corrective and construction activities, interpret complex instructions, regulations, manuals, operating and maintenance procedures and specifications related to high-voltage power transmission and distribution systems and equipment, utilize tools and diagnostic equipment to test and monitor equipment condition as well as repair equipment necessary to meet electrical demand and/or capacity, use and maintain electrical/mechanical tools and equipment normally and traditionally used in high-voltage transmission and distribution systems such as production digger, aerial lifts, bucket trucks crane, and associated line equipment, use high-level skills and expertise using traditional analog and precision digital instruments to ensure critical measurements and alignments as part of diagnostic and predictive maintenance, safety practices and regulations for operating electrical equipment.

CERTIFICATES, LICENSES and REGISTRATIONS REQUIREMENTS

Employees in this position may be required to obtain and maintain the following certifications, licenses, and registrations:

- Valid Drivers license from state of residency equivalent to a California Class A, B, and/or C with appropriate commercial license endorsements
- High Voltage Line-Work Certification
- Crane Certification
- MWD High-Voltage Switching Certification

PHYSICAL DEMANDS/WORK ENVIRONMENT

Expectations of Hours of Service, Emergency and Stand-by Service:

Employees in this position will be required to work off-shift hours and/or stand-by service to address operational needs and emergencies as required. May be required to work extended periods away from the normal reporting location.

Physical Demands:

Heavy tasks may require lifting and carrying items weighing up to 50 pounds, with intermittent need to lift and carry materials and/or equipment weighing up to 100 pounds with assistance. Frequently requires pushing, pulling, turning, and positioning parts, assemblies, equipment, and tools weighing as much as 100 pounds with assistance. May be required to lift and move heavy items with the assistance of others and with lifting devices such as jacks, hoists and cranes of varied types and capacities. Physical effort includes frequent walking, stooping, bending, reaching, standing, kneeling, sitting for long periods of time, climbing wood poles and steel structures.

Work Environment:

Work is performed indoors and outdoors at large pumping, treatment, hydroelectric or control facilities, or associated with other assets, under all types of conditions including extreme temperatures, remote locations, open and confined spaces ranging from crawl spaces to sub-structures as well as varied types of terrains. Job tasks frequently require working from heights and functioning from elevated platforms

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Job Code: T06

Adopted: 01/29/2008

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suspended by lifts, hoists, scaffolds, and cranes over surfaces from earthen materials to concrete, steel, and water. Work frequently is conducted in close proximity to high volume/pressurized water and electrically energized equipment including high-voltage systems. The work environment often involves exposure to equipment and tools producing high levels of noise, as well as potentially dangerous materials, chemicals, and machinery that require careful adherence to extensive safety precautions, rules, and regulations.

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