

JOB DESCRIPTION AND POSITION CLASSIFICATION

CLASSIFICATION Electrical Engineer		DWR POSITION NUMBER 2751-3613-900	SAP POSITION NUMBER 50105880	MCR 1
APPOINTEE Vacant		SAP PERSONNEL NO. TBD	DIVISION/SECTION O&M/ADM ENG/MESB/E&TS/Electrical Test Unit	
COLLECTIVE BARGAINING IDENTIFIER Management Related BU: ☐ Supervisory Related BU: ☐ Confidential Related BU: ☒ Rank and File BU: R09				
RESPONSIBILITIES EXERCISED ☐ Supervisory ☐ Lead Person		IMMEDIATE SUPERVISOR (Print) Gregory Louie	SUPERVISOR'S CLASSIFICATION Sr. HEPUE (Supv)	
APPROVED BY (Personnel Analyst's Name) Marissa Arriaga			DATE 9/9/26	
<i>Percent of Time</i>	<i>Activity</i>			
30%	POSITION SUMMARY Under the direction of the Manager, Electrical Test Unit the incumbent performs engineering tasks in reviewing drawings and specifications, performing electrical testing and contract administration, preparing test procedures and reports, performing start-up and routine testing of electrical systems and equipment, on the State Water Project (SWP), and other projects, and providing technical assistance in the implementation of the corrective action. Support and participate in all phases of the Cradle to Grave Program including planning, design, manufacturing, construction, commissioning, and maintenance to enhance organizational programs, and increase expertise, safety and sustainability. ESSENTIAL FUNCTIONS This position requires that the incumbent work cooperatively with others; maintain regular, consistent, and predictable attendance; analyze data and event reports accurately; exercise good judgment; communicate effectively verbally and in writing; provide timely, cost effective, and quality engineering services to meet the needs of the Department's clients; work proactively to analyze data and event reports and take effective action to complete projects on time and within budget; and coordinate efforts with other participants, clients, Section Managers, and Division Management. The specific essential duties include, but are not limited to: Participates and assists in electrical testing on large motors and generators, coupling capacitors, current transformers, potential transformers, high voltage breakers, and power transformers at various facilities of the SWP. This testing includes the installation and operation of specialized electrical test equipment such as high voltage test sets and Doble power factor sets. Electrical tests include power factor (Doble), oil analysis, high potential, revenue meter calibration, motor/generator efficiency, and infrared imaging. Acts as lead person on jobs as assigned. This may require extensive travel throughout the State by air or vehicle.			
SUPERVISOR'S STATEMENT: I HAVE DISCUSSED THE DUTIES OF THE POSITION WITH THE EMPLOYEE.				
SUPERVISOR'S NAME (Print) Gregory Louie		SUPERVISOR'S SIGNATURE ➤		DATE
EMPLOYEE'S STATEMENT: I HAVE DISCUSSED WITH MY SUPERVISOR THE DUTIES OF THE POSITION AND HAVE RECEIVED A COPY OF THE DUTY STATEMENT.				
EMPLOYEE'S NAME (Print) Vacant		EMPLOYEE'S SIGNATURE ➤		DATE

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Electrical Engineer		2751-3613-900	50105880	1
APPOINTEE		SAP PERSONNEL NO.	DIVISION/SECTION	
Vacant		TBD	O&M/ADM ENG/MESB/E&TS/Electrical Test Unit	
Percent of Time	Activity			
30%	Assists with preparing specialized electrical power test procedures, reports, and related correspondence. Test reports to be complete with tables, graphs, and calculations. Analyzes test results and provides recommendations for corrective actions based on industry standards and best practices.			
10%	Assists with maintaining schedules for various electrical equipment testing programs for the Division of Operations and Maintenance. Develops and maintains database for electrical tests.			
10%	Performs contract management activities including coordination with contractors, development of scopes of work, and approving invoices for payment.			
10%	Collects and maintains test records, procures equipment, and other work as required. Reads and interprets electrical diagrams and schematics. Assists in maintenance and calibration of test instruments to ensure that electrical test measurements are accurate.			
10%	Coordinates testing with activities of other departmental units. Attends training, conducts research, and maintains liaison with utility companies, manufacturers, and other divisions of DWR for uniformity of methods and utilization of the most efficient and acceptable testing techniques.			
KNOWLEDGE, SKILLS, AND ABILITIES				
Working knowledge of engineering fundamentals and mathematics to prepare plans, layouts, and specifications for designing electrical systems and equipment used in pumping plants, hydroelectric power generating plants and other related facilities. Knowledge of various codes, safety orders and regulations governing the design, installation, and testing of mechanical systems and equipment. Knowledge of industry standards and processes used in manufacturing of mechanical and electromechanical systems and equipment used in pumping plants and hydroelectric power generating plants. Ability to utilize personal computers and commercial software programs to perform engineering computations and prepare design drawings. Ability to work with vendors and manufacturers in conducting market research for equipment and materials. Ability to prepare clear and concise engineering reports. Ability to act as lead person and effectively direct the work of subordinates.				
Ability to move items up to 50 pounds; stamina and ability to bend, stoop, kneel, and crawl; climb stairs and uneven (sometimes steep) slopes while carrying equipment; mobility to walk unassisted throughout the facilities of the State Water Project; and manual dexterity required to operate computers. Must have stamina and ability to remove and replace manhole covers and climb down manholes into shallow underground vaults for maintenance visits. Must be able and willing to work alone and in adverse weather conditions, e.g., extreme heat or cold. Must work well with others and follow established safety procedures inherent in the job.				

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<i>Percent of Time</i>	<i>Activity</i>			
	SPECIAL REQUIREMENTS Travel is required to attend meetings and training, which may require travel by air, driving on public roadways, and overnight stay. Employee is required to successfully complete all safety training related to the functions of the job. All employees are responsible for contributing to an inclusive, safe, and secure work environment that values diverse cultures, perspectives, and experiences, and is free from discrimination. The Department of Water Resources is committed to its mission and employees, and we are grounded in our commitment to public safety. Regular, consistent, and predictable attendance is essential to the successful performance in this position. Under the provisions of the North American Electric Reliability Corporation Critical Infrastructure Protection Standard CIP-004 as part of the Energy Policy of 2005, this position has authorized cyber access to or unescorted physical access around critical cyber assets and is subject to a satisfactory background check prior to appointment and every seven years thereafter. OTHER RESPONSIBILITIES This position provides necessary support to the Divisions of Flood Management, Safety of Dams, Operations and Maintenance, Engineering, and/or the Public Affairs Office during Governor declared emergencies, flood, dam, SWP, and other incidents and emergencies. Additionally, this position may participate in emergency operations in the capacity of area teams, field inspection, coordination, and assist agencies such as Cal OES and FEMA in disaster work, including performing fieldwork to complete damage survey reports for droughts, flooding, earthquakes, and other emergencies. This position may also serve in one of the sections as established in the Incident Command System to assist the Department in performing its emergency preparedness, response, recovery, and mitigation functions. These functions are established in the California State Emergency Plan and the Department's Administrative Orders.			