

### JOB DESCRIPTION AND POSITION CLASSIFICATION

CLASSIFICATION <b>Electrical Engineer</b>		DWR POSITION NUMBER <b>2762-3613-004</b>	SAP POSITION NUMBER <b>50001823</b>	MCR <b>1</b>
APPOINTEE <b>Vacant</b>		SAP PERSONNEL NO. <b>TBD</b>	DIVISION/SECTION <b>O&amp;M/ADM1/UPSS/EMS/POC Engineering Section</b>	
COLLECTIVE BARGAINING IDENTIFIER Management Related BU: <input type="checkbox"/> Supervisory Related BU: <input type="checkbox"/> Confidential Related BU: <input type="checkbox"/> Rank and File BU: <input checked="" type="checkbox"/> <b>R09</b>				
RESPONSIBILITIES EXERCISED <input type="checkbox"/> Supervisory <input type="checkbox"/> Lead Person		IMMEDIATE SUPERVISOR (Print) <b>Susan Johnston</b>	SUPERVISOR'S CLASSIFICATION <b>Senior Control Engineer (Supervisor)</b>	
APPROVED BY (Personnel Analyst's Name) <b>Marissa Arriaga</b>			DATE <b>6/26/26</b>	
<i>Percent of Time</i>	<i>Activity</i>			
<b>30%</b>	<p><b>POSITION SUMMARY:</b></p> <p>Under the supervision of the State Water Project (SWP) Energy Management Systems (EMS) Project Operation Center Engineering (POCE) Engineering Supervisor, the Electrical Engineer (EE) provides engineering support for Utility Power Systems Services (UPSS) Systems and applications related to the operation and maintenance of the Joint Operations Center (JOC) and Project Operations Center (POC). Key systems include Supervisory Control and Data Acquisition (SCADA), Control, and EMS Systems that support the statewide operation of water and power facilities, including pumping, hydroelectric power generation, and water conveyance. The EE assists with engineering studies, system analysis, and technical documentation supporting systems that facilitate the real-time delivery of water and energy within the SWP. The incumbent participates in system monitoring, testing, troubleshooting, and implementation activities related to operational technologies and infrastructure used by the POC. This role also supports cybersecurity monitoring activities associated with the SWP SCADA Security Operations Center (SOC), helping identify and analyze potential cyber threats impacting critical systems. Additionally, the EE contributes to the development, monitoring, and maintenance of processes that support SWP compliance with Federal Regulatory Requirements, including the North American Electric Reliability Corporation (NERC), Critical Infrastructure Protection (CIP), Program.</p> <p><b>ESSENTIAL FUNCTIONS:</b></p> <p>This position requires that the incumbent work independently as well as cooperatively with others, maintain regular, consistent, predictable attendance, and exercise good judgment as a high-level technical specialist. The specific essential duties include, but are not limited to the following:</p> <p>Provide engineering support for operational systems and infrastructure used by the SWP POC to schedule and execute commands for the delivery and generation of water and energy. Support existing infrastructure including energy metering systems, SCADA Systems, EMS Applications, and associated operational technologies. Activities include assisting in projects involving engineering</p>			
SUPERVISOR'S STATEMENT: <b>I HAVE DISCUSSED THE DUTIES OF THE POSITION WITH THE EMPLOYEE.</b>				
SUPERVISOR'S NAME (Print) <b>Susan Johnston</b>		SUPERVISOR'S SIGNATURE ➤		DATE
EMPLOYEE'S STATEMENT: <b>I HAVE DISCUSSED WITH MY SUPERVISOR THE DUTIES OF THE POSITION AND HAVE RECEIVED A COPY OF THE DUTY STATEMENT.</b>				
EMPLOYEE'S NAME (Print) <b>Vacant</b>		EMPLOYEE'S SIGNATURE ➤		DATE

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<i>Percent of Time</i>	<i>Activity</i>		
<b>25%</b>	<p>design, development, testing, implementation/programming, and technical documentation related to POCE Systems. Assist in the preparation and review of engineering documentation including functional descriptions, system diagrams, equipment inventories, and installation details.</p> <p>Perform technical analysis of cybersecurity alerts as part of the SWP SCADA Security Operations Center (SOC) monitoring program on a recurring basis. Monitor security events affecting SCADA and EMS environments and assist with identifying, analyzing, and responding to cybersecurity incidents impacting critical assets owned by UPSS. Support efforts to detect potential cyber threats, troubleshoot SCADA security issues, and collaborate with engineering and cybersecurity teams to mitigate risks and maintain system integrity. Assist with maintaining operational security monitoring tools and documenting cybersecurity events affecting critical cyber assets supporting the Bulk Electric System (BES).</p>		
<b>20%</b>	<p>Assist with engineering studies and technical analysis supporting the scheduling and implementation of water and energy operations for the SWP. Support development and maintenance of programs and tools used to monitor, test, analyze, and document operational systems within the POC including recovery action plans, power and cooling infrastructure for control facilities, and operational data reporting systems. Assist with analyzing relationships and inter-dependencies between systems such as SCADA, Historical data reporting applications, Energy Market related software applications, energy meter systems, and business reporting tools.</p>		
<b>15%</b>	<p>Provide support for monitoring, testing, analysis, and documentation of systems that support POC Operations, including energy meter systems, associated interfaces, and operational applications tied to water and energy scheduling and implementation. Develop and utilize tools to track system performance, validate functionality, and support reporting efforts. Document system configurations, operational procedures, and inter-dependencies between POC Systems and related business and reporting applications. Assist with troubleshooting system issues and support coordination of resources within the Unit and across the Sections to ensure reliable system operations.</p>		
<b>5%</b>	<p>Prepare written reports, status updates, and technical documentation supporting engineering activities within the POCE Unit. Participate in internal coordination meetings and assist with gathering functional requirements from business users to support system enhancements, operational improvements, and engineering studies.</p>		
<b>5%</b>	<p>Represent the POCE Unit in internal meetings and technical discussions with other engineering units and operational personnel. Assist with documenting system requirements and engineering considerations associated with new initiatives, operational improvements, or issues identified through operational activities.</p>		

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	<p><b>KNOWLEDGE, SKILLS, AND ABILITIES:</b></p> <p>Basic knowledge of electrical engineering principles, control systems, and industrial operational technologies. Familiarity with computer programming concepts and relational databases such as SQL or Oracle is desirable.</p> <p>Ability to perform technical troubleshooting, analyze system data, and document engineering processes clearly and concisely. Ability to communicate effectively both verbally and in writing and Ability to work independently as well as collaboratively in a team environment. Ability to manage multiple assignments and complete work within established timelines. On-the-job training will be provided regarding compliance requirements and operational standards including NERC-CIP, Western Electricity Coordinating Council (WECC), Reliability Standards, Federal Energy Regulatory Commission (FERC), Regulations, California Independent System Operator (CAISO), Tariff Requirements, and CAISO Business Practice Manuals.</p> <p>Finger dexterity is required to operate computer equipment. Ability to lift or move items weighing up to 40 pounds may be required. Must be able to distinguish colors on computer displays used for operational monitoring systems.</p> <p><b>SPECIAL REQUIREMENTS:</b></p> <p>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.</p> <p>Occasional travel may be necessary to SWP facilities using State or private vehicles. The incumbent may occasionally be required to work outside normal business hours, travel, and stay overnight within the State of California to support operational activities.</p> <p>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.</p> <p>The Department of Water Resources (DWR) 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.</p>		

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	<p><b>OTHER REQUIREMENTS:</b></p> <p><b>This position provides support to the Divisions of Flood Management, Safety of Dams, Operations and Maintenance, Engineering, and the Public Affairs Office during Governor-declared emergencies and other incidents involving SWP facilities. The incumbent may assist with emergency response activities including field inspections, coordination with agencies such as Cal OES and FEMA, and preparation of damage assessment reports following disasters such as floods, droughts, earthquakes, and other emergencies. The incumbent may also serve within the Incident Command System structure to support the Department's emergency preparedness, response, recovery, and mitigation responsibilities as defined in the California State Emergency Plan and Department Administrative Orders.</b></p>		