

JOB DESCRIPTION AND POSITION CLASSIFICATION

CLASSIFICATION Hydroelectric Plant Technician I		DWR POSITION NUMBER 2761-3728-X8X	SAP POSITION NUMBER 50001967	MCR 1
APPOINTEE VACANT		SAP PERSONNEL NO. TBD	DIVISION/SECTION O&M/ADM-Eng/UPSS Technician Section	
COLLECTIVE BARGAINING IDENTIFIER Management Related BU: ☐ Supervisory Related BU: ☐ Confidential Related BU: ☒ Rank and File BU: R12				
RESPONSIBILITIES EXERCISED ☐ Supervisory ☐ Lead Person		IMMEDIATE SUPERVISOR (Print) Lucas Keserich		SUPERVISOR'S CLASSIFICATION HEP Technician Supervisor
APPROVED BY (Personnel Analyst's Name) Sydney Mecke			DATE 7/10/26	
<i>Percent of Time</i>	<i>Activity</i>			
	POSITION SUMMARY: Under the direction of an Hydroelectric Plant (HEP) Technician Supervisor with guidance from the Hydroelectric Plant (HEP) Technician III, the incumbent performs routine and basic tasks on control, communication, high voltage systems, seismic instrumentation, electrical and mechanical equipment in connection with the operation and maintenance of SWP generating/pumping plants, switchyards, water conveyance, and facilities.			
	ESSENTIAL FUNCTIONS: This position requires that the incumbent work cooperatively with others, maintain regular, consistent, predictable attendance and exercise good judgment. Must be a good communicator, creative, collaborative and a critical thinker. The specific essential duties, and equipment summaries are, but not limited to, the following:			
35%	Assist with analyzing, troubleshooting and diagnosing hardware and software failures on equipment. Isolate system faults and identify equipment failures. Knowledge of and ability to use the appropriate tools and test equipment including fiber optic test equipment, Optical Time Domain Reflectometer (OTDR), Visual Fault Locator (VFL), Power Meter, Light Source, Volt/Ohm Meter (VOM), Protocol Analyzers, personal computers and various hand and power tools. Must be able to interpret technical documentation, drawings and schematics. Assist with identifying appropriate replacement equipment and restore equipment including testing and validation of proper operations. Assist with Testing: validation of alarm settings, trip circuit testing and full function test for proper startup and operation. Perform calculations to obtain required instrument settings and calibrate flow, level, pressure, current, voltage and set the instrument ranges for the system design. Analyze test results and equipment operation to verify the system is operating correctly and if required make necessary adjustments.			
25%	Assist with preparation of installation: by following and interpreting installation instructions,			
SUPERVISOR'S STATEMENT: I HAVE DISCUSSED THE DUTIES OF THE POSITION WITH THE EMPLOYEE.				
SUPERVISOR'S NAME (Print) Lucas Keserich		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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VACANT		TBD	O&M/ADM-Eng/UPSS Technician Section	
Percent of Time	Activity			
	documentation packages, drawings, and follow direction from senior HEPTs. Assist with performing physical installation of: cables, system assemblies, discrete components, integration of new equipment, make electrical, mechanical and system connections that may include sensors, transducers, ancillary devices and components used for protection, monitoring and control within the SWP Power and Water facilities. Additional installation tasks: determining required materials, may include design and construction of custom made apparatus, identify specialized tools or equipment needed, safety equipment and Personal Protective Equipment (PPE), required. Learn set-up and test procedures of in-service and new equipment and develop new test procedures if needed.			
20%	Perform on SWP generating/pumping plants, switchyards, water conveyance, and facilities. Independently performs routine tasks and assist on difficult tasks performing preventative maintenance, modifications, calibration, upgrades on equipment and systems to ensure the highest degree of reliability and availability. Inspects, cleans, performs electrical and mechanical checks, and observes equipment/system operations to insure proper functionality. Performs calibration and routine maintenance on test sets, instrumentation, and tools to validate accuracy. Documents maintenance performed, issues found, any followup requirements or system needs, updates all maintenance files and uploads any photos or electronic test files.			
10%	Follow procedures and instructions to configure equipment and functional parameters to meet required operations design. Assists with applying software updates to correct vulnerabilities and ensure operation at the required version level.			
5%	Document according to established procedures, maintenance, troubleshooting or repairs performed, new installation, calibration settings, test results, equipment settings, drawing updates, file manufactures MEIs of new equipment installed, maintains records of installed equipment and asset inventory, spares inventory, software updates, and equipment modifications; prepare and update test reports and procedures, requisitions for materials, tools, and services.			
5%	Must pass all required safety training. Participate/attend HEPT Training to ensure understanding and ability to perform work and maintenance on supervisory Control and Data Acquisition (SCADA), Communications, Instrumentation, IT and power equipment used in the various SWP facilities.			
	KNOWLEDGE, SKILLS, AND ABILITIES:			
	Must have normal manual dexterity and eye-hand coordination to operate keyboards and control panels of communications equipment. Strength and ability to move, push, pull and handle material or equipment up to 50 pounds. Must have stamina and ability to bend, stoop, kneel, stretch to access, test or install cables, equipment or materials the stamina and ability to climb 25 foot ladders, long flights of stairs, scaffolding, and towers to access, test or install cables, equipment or materials, climb stairs and uneven (sometimes steep) slopes while carrying equipment, and must			

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	be able to operate computers. Must have the mobility to walk unassisted throughout the facilities of the Field Divisions. Must follow established safety procedures inherent in the job. Must have ability to make sound technical decisions on real-time systems under tight time constraints. Must be able to work on multiple projects, sometimes in multidisciplinary areas. Must have the ability to identify color-coded parts, indicator lights, monitor display data, hazard warning tags, and warning barrier tapes. Must have the ability to work in confined spaces and requires working around loud machinery. Must possess the the manual dexterity to operate control panels, equipment keypads and for delicate component or printed circuit board repair. Must have the ability to operate SCADA equipment including host servers, work stations, programmable logic controllers, sequence of event loggers, front end processors, communication interface devices, and application software. Must have the ability to operate on Communication equipment including various types of multiplexor's/demultiplexor's, transport systems, fiber optic cable, copper cable, media converters, IT devices, LAN, WAN and wireless network equipment, leased telco services, voice, data and video networks. Must be able to work with SWP IT related equipment and support, including personal computers, work-stations, servers, video surveillance systems, security and alarm systems, video-conference systems, and VOIP digital and analog telephone systems, installation of infrastructure cabling. Provide desktop and end user support. Must have the ability to work with SWP plant and water conveyance instrumentation, devices and systems used for protection, monitoring, data collection and control - including relays, programmable logic controllers, signal conditioners, analog data circuits, power line carriers, radio and microwave system, sensors and transducers for voltage, current, thermal, flow, level, vibration, pressure, seismographic equipment and instrumentation including accelerometers, accelerographs and broadband sensors. Must have the ability to work with SWP Generating and pumping plant equipment including power transformers, power circuit breakers, high voltage instrument transformers, governors, excitation/voltage regulators, annunciators, hydraulic/pneumatic systems, safety systems. SPECIAL REQUIREMENTS: Travel throughout the State may be required for extensive periods of time. Field inspections may require travel to domestic and foreign locations via air travel or other means of transportation. Work may require driving a vehicle on public roadways and/or uneven terrain to remote areas. Will be occasionally contacted for after-hours emergency call-out support of the communications system. 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.			

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	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. 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. This is a sensitive position and is subject to substance abuse testing as defined in California Department of Human Resources (CalHR) Regulations 599.960-599.966. 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.			