



Title: Operations & Maintenance Technician IV - Date Printed: 01/16/2018
Mechanical

Job Posted On: 01/12/2018

Posting Expiration Date: 02/11/2018

Work Location: Los Angeles, California,

Description

The Metropolitan Water District of Southern California is a consortium of twenty six cities and water districts that provides drinking water to nearly 19 million people in Southern California. Metropolitan's mission is to provide its service area with adequate and reliable supplies of high quality water to meet current and future needs in an environmentally and economically responsible way. Metropolitan's facilities include the 242-mile Colorado River Aqueduct, five conventional water treatment plants with a combined capacity of 2.6 billion gallons per day, nine surface water reservoirs, 800 miles of pipeline, and 16 hydroelectric power plants.

OPERATIONS & MAINTENANCE TECHNICIAN IV (MECHANICAL)

The Water System Operations Group, Conveyance & Distribution Section, currently has three (3) openings for Operations & Maintenance Technician IV (Mechanical) within the Western Region Unit (Conveyance & Distribution) located at our Soto Street Facility in Los Angeles, CA.

JOB SUMMARY

Performs journey level mechanical maintenance tasks and activities at conveyance and distribution systems within LA County, including but not limited to treatment plants, aqueduct pump plant, chemical unloading, reservoirs, hydroelectric plants, along right-of-ways, and at other facilities utilizing equipment, processes and systems to ensure ongoing reliability of water and power delivery.

The C & D Mechanic's activities in conveyance and distribution include inspecting, maintaining, and improving mechanical systems associated with large equipment, infrastructure, and assets such as valves, hydraulic systems, compressors, pumps, turnouts and pipelines, feeders and canals, control and pressure-relief structures, reservoirs, and other appurtenances and processes related to the effective delivery of water and electric power. Also, activities include operating utility trucks, cranes/rigging and heavy equipment. Operational activities include water flow changes and adjusting flow pressure settings in control and pressure relief structures, including shutdown and outage operations for maintenance such as dewatering, disinfecting and refilling.

Conveyance and Distribution

1. Performs a wide variety of journey mechanical preventive and corrective maintenance (PM/CM) on conveyance and distribution related systems, processes and facilities to ensure conveyance and distribution reliability that may include work on: valves of various sizes, configuration and operation control (manual and motor) including pneumatic and hydraulic systems, pipelines, feeders, aqueducts, canals, siphons, reservoirs, pumps, lubrication and cooling equipment, control and pressure relief structures and associated equipment/assets and cranes and rigging systems.
2. Completes preventive and corrective maintenance activities on large-scale water conveyance and distribution infrastructure and assets including tunnels, pipelines, feeders, and reservoirs, to maintain distribution system integrity, capacity, and operational reliability.
3. Performs and/or assist with preventive and corrective maintenance of mechanical/electrical systems necessary for standby power generators and associated systems to maintain operational readiness during outages or other emergencies.
4. Performs preventive and corrective maintenance on valves of differing size, configuration, age, and operating control systems. May include lubrication, exercising and repair, and replacement of parts to ensure effective water movement and valve longevity.
5. Accomplishes preventive and corrective maintenance on pressure relief and pressure control structures to ensure reliable operation of water distribution components and functions. Perform PM and CM to ensure structure integrity, safety, security and appearance standards.
6. Operates and monitors valves to make flow changes and adjust pressure settings for routine operations, shutdowns, or other operating conditions requiring safe and effective transfer or adjustment in the movement of water.
7. Rebuilds and repairs conveyance and distribution infrastructure, equipment, systems and processes as necessary, requiring planning, fabrication of parts, welding and/or assembly and installation to bring equipment/processes to as-designed operating condition.
8. Performs and/or assists with improving mechanical systems associated with construction and improvement projects such as building and infrastructure enhancements directly associated with conveyance and distribution systems including modifications, rebuilding, and relocating structures, assets, and equipment.
9. Completes, at times in collaboration with Specialist level or Control Technicians, complex predictive, preventive and corrective maintenance on mechanical/electrical systems associated with large motors, pumps, generators, turbines, valves, varied equipment and other mechanical related systems associated with the effective movement of water and power.
10. Performs water analysis such as pH, hardness, chlorine and ammonia at various facilities including reservoirs, to test for contaminants and other essential water quality elements.
11. Inspects, tests, calibrates, and records readings for a variety of mechanical system and equipment to meet reliable equipment life and service expectations, including valves, pumps, flow meters, cranes and lifts, chemical storage and feed systems, basins and related equipment to ensure effective water operations and movement.
12. Assists with the planning and coordination of scheduled PdM, PM, and CM, as well as unplanned outages, shutdowns, and other emergency situations, to minimize equipment downtime and interruption of service to member agencies or other customers.

Work Schedule: 4/10; Monday-Thursday or Tuesday-Friday, 6:00 a.m.-4:30 p.m.

Required Skills

MINIMUM QUALIFICATIONS

Education and Experience:

High school diploma or Certificate of High School equivalency in addition to a minimum of 6 years in a mechanical maintenance position at a water agency or in a conveyance and distribution facility such as a pump plant, treatment plant, and hydroelectric facility or similar environment.

OR

High school diploma or Certificate of High School equivalency in addition to the attainment of journey level skills through a recognized mechanical trade training program. Journey level experience as demonstrated by practical application of general and advanced techniques and practices specific to the operation, maintenance, and repair of mechanical systems at a water agency or in a conveyance and distribution facility such as a treatment plant, pump plant, and/or power generation systems, and related apparatus.

Required Knowledge of: Theories and practices of mechanical systems and their application to large-scale mechanical systems and equipment related to conveyance and distribution hydroelectric power plants and water treatment systems, as well as general and utility facility mechanical systems, applying methods, practices and tools to ensure reliable operations for the distribution and treatment of water, generation of power, and optimization of assets and equipment to meet operational demands within established limits and standards, contemporary maintenance reliability analysis and troubleshooting methods including determination of failure causes, diagnostic analysis through failure mode, and root cause analysis, using traditional analog and precision digital instruments to ensure critical measurements and alignments as part of diagnostic and predictive maintenance, including laser alignment equipment, analog and digital meters, calipers and other tools related to close tolerance analysis and work, and safety practices and regulations for operating or working near electrical and/or mechanical equipment, high voltage systems, hazardous materials, and associated tools and equipment.

Required Skills and Abilities to: Understand and interpret mechanical engineering data necessary to effectively implement predictive, preventive, corrective, and improvement activities. Perform or assist in the drafting, design, layout and development of procedures, manuals, orders and similar documentation to ensure safe operating techniques and/or for training, to interpret complex schematics, blueprints, electrical diagrams, instructions, manuals, operating and maintenance procedures, and specifications related to water treatment, conveyance and distribution and pump plant, as well as building, facility and hydroelectric power systems/equipment, and experience to utilize tools and diagnostic equipment to test and monitor equipment and asset condition, as well as repair, install and replace equipment necessary to meet water and electrical generation demand and/or capacity, use and maintain mechanical tools and equipment traditionally used in hydroelectric plants, pump plants, treatment plants, and within water and power control and distribution infrastructure and facilities, apply and guide others in adhering to safety practices and regulations for operating or working near electrical and/or mechanical equipment, high voltage systems, hazardous materials, and associated tools and equipment.

CERTIFICATES, LICENSES and REGISTRATIONS REQUIREMENTS

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

- Valid Driver's license from state of residency, equivalent to a California Class C that allows you

to drive in the course of your employment. (Must have at time of application).

- Forklift Certification
- MWD High Voltage Switching Certification
- California Department of Health Service Water Distribution Grade 2 (D2) Certification

PHYSICAL DEMANDS/WORK ENVIRONMENT

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

Employees in this position may be required to work off-shift hours and/or stand-by service to address operational needs and emergencies as required. Pump plant personnel assigned stand-by are required to respond within 15 minutes. 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, crawling, climbing, kneeling and sitting for long periods of time. At times may be required to use Self Contained Breathing Apparatus (SCBA) or other respiratory filtration and personal protection devices.

Work Environment:

Work is performed indoors and outdoors at large pumping, treatment, hydroelectric or control facilities, or associated assets, under all types of conditions including extreme temperatures, open and confined spaces ranging from crawl space to sub-structures as well as varied types of terrains. Job tasks frequently require working from heights and functioning from lifts, hoists, scaffolds, and cranes over surfaces ranging from earthen materials to concrete, steel and water. Work frequently is conducted in close proximity to high volume/pressurized water, as well as exposed, 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.

Job Related Selection Criteria:

10% Job Preparation (education, experience and training relevant to the position)

65% Technical knowledge of and skills in:

- o Corrective and preventative maintenance
- o Troubleshooting and repair of industrial equipment and systems
- o Operational and maintenance practices of water treatment equipment and systems.
- o Safety practices related to the industry

10% Interpersonal/Teamwork Skills

5% Planning & Organizing

5% Decision Making Skills

5% Oral Communication Skills

100% Total

WRITTEN EXAM:

Applicants meeting the minimum qualifications will be invited to participate in a written examination. The written exam is a 2-hour examination. The written exam assesses knowledge and principles of mechanical work. Topics may include: bearings; seals; lubricants; mechanical drives; piping systems; pumps; hydraulic systems; rigging; welding and fabrication; and basic

machining. The practical exam consists of exercises designed for the candidate to demonstrate journey-level skill in one or more of the following: precision measurement; pump alignment (dial indicator); gear pump assembly; bearings; welding/fabrication; pipe fitting; rigging; print reading; and PVC piping.

A reference manual will be available during the written exam.

Benefits

Benefits:

- Competitive compensation
- Excellent Medical, Dental, Life, Vision, Retirement plans including Pension plan and 401K (with matching employer contribution), tuition reimbursement, paid holidays, and more
- Training and advancement opportunities
- Excellent working environment

This job announcement has been designed to indicate the general nature and level of work being performed by employees in this classification. It is not designed to contain or be interpreted as a comprehensive inventory of all duties, responsibilities and qualifications required of employees assigned to this job. To receive a copy of the complete job description, please send an email to jobs@mwdh2o.com.

Reasonable accommodation for people with disabilities may be requested by calling (213) 217-7738 at least 5 working days in advance of the scheduled examination date(s).

MWD is a Federal and State EO employer - Veterans/Disabled and other protected categories.

Kind: Full Time

Level: Staff Position

Apply

To apply for this position, please copy and paste the following link into your browser address bar:
<https://mwdh2o.contacthr.com/59818127>

[Go to Diversity.com](https://www.diversity.com)

Diversity.com is the most trusted and affordable resource for any organization in search of diverse professionals, managers and executives. Founded in September 2000, Diversity.com is a privately held, 100% African American family owned small business with headquarters in Atlanta, GA. We market our recruitment services nationwide to all types of industries, organizations and communities with particular emphasis on attracting talented science, technology, education and medical savvy men and women.