

**CALLEGUAS MUNICIPAL WATER DISTRICT
JOB DESCRIPTION**

Job Title: Electro-Mechanical Technician 1, 2, Senior

Department: Operations & Maintenance

FLSA Status: Non-Exempt

Reports to: Distribution System Supervisor

Position Type: Full-Time

Revision Date: January 2019

POSITION SUMMARY

Under general supervision, performs skilled mechanical and electrical work in the Electro-Mechanical Division. Typical duties include the installation, preventive maintenance, and repair of equipment such as control valves, pumps, standby generators, water treatment and chemical feed systems, meters, wells, and hydroelectric generators; troubleshooting and adjustment of equipment; inspection, testing, evaluation, and documentation of equipment performance; and interfacing with engineers, contractors, customers, and the general public.

ESSENTIAL DUTIES AND RESPONSIBILITIES

The duties listed below are intended only as illustrations of the various types of work that may be performed. The omission of specific statements of duties does not exclude them from the position if the work is similar, related, or a logical assignment to this position.

Electro-Mechanical Technician 1

- Performs preventative maintenance and repair on a wide range of pumps, motors, valves, hydroelectric generators, standby power generators and water treatment equipment.
- Installs, repairs, maintains, and replaces control valves for pressure regulating, flow control and meter stations.
- Repairs, maintains, and rehabilitates air compressors, air filters and automatic oilers at all District facilities.
- Installs, repairs, and maintains a variety of controls; such as, solenoid, mercury, and limit switches.
- Performs maintenance on vehicles and equipment.
- Repairs and rehabilitates pumps and motors.
- Assists in the disassembling, cleaning, and reassembling of hydroelectric and standby power generators.
- Cleans and services distribution system buildings and facilities.

- Is responsible for his/her own safety and the safety of coworkers by recognizing hazards and potentially hazardous situations, and having an awareness of safe practices on the job site.

Electro-Mechanical Technician 2

- Performs duties required of Electro-Mechanical Technician 1.
- Maintains chemical feed pumps, mechanical equipment, and controls in used in water treatment.
- Performs troubleshooting, diagnostic analysis, and fault isolation of a variety of electrical, mechanical, and electro-mechanical equipment and systems.
- Ability to properly disassemble, rebuild, or service equipment.
- Performs measurements, tests, and evaluations to verify performance of equipment, systems, and components, as applicable.
- Demonstrates a working knowledge of electrical, instrumentation, and control components and systems.
- Maintains service records and completes requisitions for maintenance and replacement parts.
- Works effectively with highly skilled and unskilled people to jointly perform tasks requiring expertise in other disciplines.
- Maintains a variety of records, reports, and logs.

Senior Electro-Mechanical Technician

- Performs duties required of Electro-Mechanical Technician 1 and 2.
- Performs treatment and neutralization of chemicals used in water treatment.
- Receives, unloads, stores, and transfers chemicals used in water treatment.

JOB REQUIREMENTS

To perform this job successfully, an individual must be able to perform each essential duty satisfactorily. The requirements listed below are representative of the knowledge, skill, and/or ability required. Reasonable accommodations may be made to enable individuals with disabilities to perform the essential duties and responsibilities.

Education and Experience:

Electro-Mechanical Technician 1

- High school diploma or general education degree (GED) and one year of related experience. and/or training; or equivalent combination of education and experience.
- State Water Resources Control Board Water Distribution Operator Grade 1 certificate.
- State Water Resources Control Board Water Treatment Operator Grade 1 certificate within one year of hire.
- Trained in NFPA 70E Electric Safety in the Workplace.

Electro-Mechanical Technician 2

- High school diploma or general education degree (GED) and three years of related experience and/or training; or equivalent combination of education and experience.
- Extensive knowledge of mechanical components of water production, distribution, and treatment.
- State Water Resources Control Board Water Distribution Operator Grade 2.
- Trained in NFPA 70E Electric Safety in the Workplace.
- State Water Resources Control Board Water Treatment Operator Grade 2 certificate within one year of hire.
- Clean Water Environment Association Mechanical Technologist Grade 1 within one year of hire.

Senior Electro-Mechanical Technician

- High school diploma or general education degree (GED) and five years of related experience and/or training; or equivalent combination of education and experience.
- Extensive knowledge of water system hydraulics and mechanical components of water production, distribution, and treatment.
- Clean Water Environment Association Mechanical Technologist Grade 2.
- State Water Resources Control Board Water Distribution Operator Grade 3 certificate.
- State Water Resources Control Board Water Treatment Operator Grade 2 certificate.
- Trained in NFPA 70E Electric Safety in the Workplace.
- Completed coursework in Introduction to Machinery Vibrations.
- Completed Chlorine Institute CHLOREP Training.

Knowledge and Skills:

Electro-Mechanical Technician 1

- Knowledge of District water system operations.
- Knowledge of the components of the District distribution system, the location of all system components, and ability to direct individuals to these locations.
- Knowledge of water hydraulics and pneumatics and skill in the use of precision measurement devices.
- Knowledge of safety requirements for working around heavy and power equipment, construction sites, high voltages, and in confined spaces.
- Ability to clean, adjust, and replace of mechanical equipment for water production, distribution, treatment, storage, pumping, pressure control and power generation.
- Ability to add, subtract, multiply, and divide in all units of measure, using whole numbers, common fractions, and decimals.
- Ability to read and interpret documents such as safety rules, operating and maintenance instructions, procedure manuals and blue prints.
- Ability to communicate effectively with employees and customers.

- Ability to apply common sense understanding in carrying out instructions furnished in written, oral, or diagram form and be able to solve day-to-day problems, which may occur in stressful environments.
- Ability to establish and maintain cooperative working relationships with co-workers, outside agencies, and the public.
- Ability to interact and communicate clearly, tactfully, and effectively with employees; regulatory authorities; representatives of water agencies, utilities, and government agencies; consultants; and the public.
- Ability to exercise sound, expert independent judgment.
- Ability to read and interpret complex rules and regulations.
- Ability to perform efficiently and effectively under emergency conditions and use judgment in making quick decisions under pressure.
- Ability to analyze and resolve problems.
- Ability to follow direction.

Electro-Mechanical Technician 2

- Knowledge and skills required of Electro-Mechanical Technician 1.
- Ability to test, evaluate, modify, install, and maintain pumps, motors, standby generators, hydroelectric generators, control valves, and water treatment equipment.
- Ability to perform diagnostic troubleshooting of electro-mechanical equipment such as pumps, motors, standby generators, hydroelectric generators, control valves, and water treatment equipment, determine cause of failure, and make recommendations for corrective action.
- Ability to prioritize assignments and manage a variety of complex tasks under tight deadlines.

Senior Electro-Mechanical Technician

- Knowledge and skills required of Electro-Mechanical Technician 1 and 2.
- Knowledge of chemical handling and neutralization practices.
- Ability to detect flaws in design, construction methods, and materials to ensure compliance with contract plans and specifications, permits, codes, regulations, and laws.
- Ability to write routine reports and internal memoranda.
- Ability to read and interpret complex rules and regulations.
- Ability to motivate and coordinate the activities of others.
- Ability to complete coursework in Introduction to Machinery Vibrations.
- Ability to complete Chlorine Institute CHLOREP Training.

SUPERVISORY RESPONSIBILITIES

This position does not include supervisory responsibilities.

EQUIPMENT TO BE USED

Must demonstrate an ability to perform maintenance and measurements with tools and test equipment; such as, cranes, air compressors, welders, drilling and cutting machines, multimeters (VOM), electric benders, vibration testers, and various other power and hand-tools. Must be able to use radio and phones to communicate; to operate a vehicle to travel to District facilities; to use computers, copiers, printers, projectors.

PHYSICAL AND MENTAL REQUIREMENTS

While performing the duties of this job, the employee is regularly required to stand; walk; use hands to finger, handle, or feel; reach with hands and arms; and talk or hear. The employee is frequently required to sit and is occasionally required to climb stairs and ladders or balance and stoop, kneel, crouch, or crawl; and taste or smell. The employee must be able to regularly lift and/or move up to 10 pounds, frequently lift and/or move up to 25 pounds, and occasionally lift and/or move up to 50 pounds. Specific vision abilities required by this job include close vision, distance vision, and ability to adjust focus. The employee must have the ability to enter confined spaces such as tanks, vaults, and large diameter pipelines.

WORK ENVIRONMENT

The work environment characteristics described here are representative of those an employee encounters while performing the essential functions of this job. Reasonable accommodations may be made to enable individuals with disabilities to perform the essential functions.

The employee works in the industrial environment of a water treatment plant, wellfields, vaults, pipelines, support structures, and confined space environments; and is exposed to moving mechanical parts. The work involves working around toxic and hazardous chemicals used in the water treatment process. The employee is occasionally exposed to interior wet and/or humid conditions; high, precarious places; fumes or airborne particles; toxic or caustic chemicals; risk of electrical shock; electrical arc flash; vibration and moving mechanical parts. The noise level in the work environment is occasionally loud. The employee must be able to respond to a request to work on short notice. The employee is a designated Emergency Services Worker and is occasionally called upon to work overtime or odd schedules.

SPECIAL REQUIREMENTS

The individual must possess a current California Operators license and have a good driving record. A driving record provided by the Department of Motor Vehicles showing less than two

(2) points assessed within the last 36 months and/or no serious or multiple traffic violations or accidents or failure to appear notices within the last 36 months.

The applicant will agree to submit to and pass the District's pre-employment, post-offer medical examination including drug and alcohol screening performed by a physician chosen by the District. The applicant will agree to authorize background reference checking with past employers and personal references.

The employee must be able to work around chlorine and other chemicals used in the treatment of water which are classified by Title 8, California Occupational Safety and Health Regulations, Code Section 339 as extremely hazardous materials and copper sulfate which is a toxic material.