

## WATERWORKS MECHANIC I/II

### JOB SUMMARY

Under general supervision, operates and performs skilled repairs and maintenance work related to water and wastewater systems controllers, surge arrestors, pumps, motors, mechanical piping valves and compressors; and performs related work as required.

As the incumbent gains skills and performs more difficult work through experience, training and certification, and as a desired level of proficiency is reached, advancement to the Waterworks Mechanic II class can be reasonably expected. Most incumbents gain the skill, experience, certification and proficiency for advancement within two (2) years with the District.

### EXAMPLES OF DUTIES

*(Duties include but are not limited to the following):*

- Operates, inspects, repairs, install, tests, services and maintains a variety of machinery and equipment including pumps, valves, electric motors, engines, meters, drives, tanks, compressors, circuit breakers, relays, gate and butterfly valves.
- Disconnects electrical sources (up to 4160 volts), uses lockout/tagout procedures to block electrical sources; reconnects and operates equipment at panel for maintenance purposes; removes and repairs various electrical components.
- Dismantles, diagnoses, troubleshoots, repairs and replaces pump and compressor parts.
- Keeps detailed work and maintenance records, prepares written reports; and completes maintenance work order reports.
- Designs and fabricates a variety of brackets, supports and other metal structures, using torches, welding equipment and other fabricating equipment.
- Monitors the operation of sewage lift stations and water pumping equipment to ensure proper operation.
- Schedules and performs preventative maintenance checks and servicing on pumping equipment; ensures timely and accurate completion of preventative maintenance activities.
- Calibrates gauges and other related electrical devices.
- Reads meters, gauges and charts; inspects plant equipment and remote facilities and reports any failures or operating difficulties; stops and starts equipment as required for repairs; repairs feed pumps and valves as required to ensure feed maintenance system is in proper operating condition.
- Researches catalogs to locate materials and parts required for jobs; requisitions, receives and stores parts required for jobs.
- Packs bearings, lubricates, cleans and paints equipment.
- Cleans pump stations.

- Changes oil in pump motors.
- Operates District vehicles and equipment including forklifts, compressors, cranes, jackhammers, portable and stationery generators, steam cleaners, pneumatic, hydraulic and electric tools, and related tools and equipment.
- Plans and lays out work on assigned work orders, using blueprints, schematics and rough sketches; makes rough sketches and working drawings.
- Assists other personnel by performing unskilled or semi-skilled duties.
- Coordinates activities with other sections, divisions or departments.
- Performs related work as assigned.

## **EMPLOYMENT STANDARDS**

### Knowledge of:

- Basic principles of electricity; proper methods, materials, tools and equipment used in the repair of pumps, compressors, electrical controls and valves.
- Applicable codes and regulations.
- Basic record keeping.
- Wastewater and water treatment plant principles, methods and practices.
- Use and operation of oxyacetylene and electric arc welding equipment and materials.
- Safety precautions applicable to electricity and pump maintenance.

### Ability to:

- Independently perform skilled work in the operation, maintenance and repair of internal pumps, valves and compressors and related equipment.
- Use tools, test equipment and materials used in the repair of pumps, compressors and pipelines.
- Plan, organize and lay out work.
- Work from shop drawings, sketches, plans, specifications, catalogs and technical manuals.
- Develop filing systems for maintenance records and keep accurate records.
- Operate a vehicle observing legal and defensive driving practices.
- Understand and carry out oral and written instructions.
- Establish and maintain effective relationships with those contacted in the course of work.
- Be available for overtime, standby and after hour emergencies.

### Experience and Education:

Any combination of training, experience and education that could likely provide the required knowledge and abilities stated above, and the ability to perform the duties of the position would be qualifying. A typical way to obtain the knowledge and abilities would be:

Experience: Two to three years of general experience involving mechanical maintenance and repair work, and formal or informal training in compressor and pump operation and maintenance or a closely related field.

Education: Formal or informal education or training at a level which ensures the ability to read, write, and perform mathematical computations and write reports at a level necessary for successful job performance. Completion of coursework in the areas of mechanical maintenance and repair is required.

Licenses and Certificates:

Possession of a valid California driver's license, Class C, with ability to maintain insurability under the District's insurance carrier.

Physical Demands:

Use hands and fingers to handle, feel or operate objects, tools or controls; reach with hands and arms; use lower body mobility to stand, walk, climb, stoop, bend, crawl and extend legs; be exposed to harsh substances; be exposed to foul odors; work in confined spaces; regularly lift over 50 pounds and frequently over 100 pounds with assistance; specific vision abilities required include close vision, distance vision, color vision, peripheral vision, depth perception and the ability to adjust focus; incumbent is regularly required to use written and oral communication skills; read and interpret data; analyze and solve problems; observe and interpret situation; wear protective apparel including, but not limited to, goggles, face protectors, aprons, shoes and a respirator, as required by OSHA standards; speak in a normal voice to be able to be heard and understood on the telephone and awareness of electrical hazards.

**OTHER REQUIREMENTS**

May be required to work evenings and weekends and assume stand-by duty if necessary.

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