MAINTENANCE WORKER I/II

Water/Wastewater

DEFINITION

Under the direct or general direction of higher level staff, performs a wide variety of semi-skilled and skilled tasks related to the maintenance and repair of electrical and mechanical equipment in the City's water/wastewater systems in compliance with State and Federal regulations; and performs all other related duties as assigned.

CLASS CHARACTERISTICS

Maintenance Worker I: This is the entry-level class in the water/wastewater maintenance worker series. This class is distinguished from the Maintenance Worker II by assisting in the performance of the more routine tasks and duties assigned to positions within the series while gaining knowledge and abilities. As experience is gained, assignments become more varied and are performed with greater independence. This class is alternately staffed with Maintenance Worker II and incumbents may advance to the higher level upon meeting the promotional requirements established for the position.

Maintenance Worker II: This is the journey-level class in the water/wastewater maintenance worker series. This class is distinguished from the Maintenance Worker I by the performance of the full range and more complex duties. This class requires only general direction or assistance as new or unusual situations arise and employees are fully aware of the operating procedures and policies of the work unit. This class is further distinguished from the Maintenance Worker I in that it is responsible for related metal fabrication and cement work. This class is flexibly staffed and normally filled by promotion from the lower class of Maintenance Worker I, or when filled from the outside, requires possession of a valid Grade I (or higher) CWEA Plant Maintenance Technologist Certificate and satisfactory demonstration of ability to meet the requirements established for promotion to the position.

EXAMPLES OF DUTIES

- Inspects and maintains water and wastewater treatment and collection pumps, electric motors, electrical panels, and drive systems; removes, repairs, rebuilds, troubleshoots, tests and installs a wide variety of electrical and mechanical equipment, including pumps, hydraulic systems, electric motors, and control circuits.
- Inspects and maintains a wide variety of water/wastewater system components and specialized equipment used in water treatment distribution systems, including debris screening, dewatering, solids removal, aeration, and chemical feed equipment.
- Replaces and adjusts chains, chain idlers and gears, wiper blades, drive belts, conveyor belts
 and pulleys; replaces mechanical seals, packing and belts on pumps and gear boxes; repairs,
 replaces and maintains fans, compressors, boosters, scrubbers, filters and flame arrestors; and
 maintains and repairs natural and methane gas-fired boiler/heat exchangers.

- Repairs dikes and weir boxes; cleans and disinfects storage tanks and plant equipment; cleans, steam cleans and sandblasts equipment; changes oil in equipment and gear boxes; lubricates and greases bearings, gears, chains, seals and couplings.
- Cleans, sands, removes rust, prepares for paint and paints pipes, valves, pumps, motors and various other pieces of equipment and structures.
- Performs grounds keeping maintenance to include weed eating, edging, mowing and trimming grass and shrubs.
- Participates in the maintenance of the water/wastewater treatment plants, wastewater lift stations, water pump stations, and the water storage and distribution system.
- Constructs conduit systems for electrical wiring.
- Assists in design, construction and retrofit of water/wastewater facilities equipment.
- Performs all other related duties as assigned.

In addition to the above, the Maintenance Worker II:

- Designs and fabricates pipe and electrical systems for new equipment and equipment upgrades; may machine parts for water and wastewater equipment; welds, cuts and fabricates steel support structures for water and wastewater equipment and buildings.
- Designs and builds forms and lays and finishes cement pads for pump and equipment bases.
- Prepares and/or assists in the preparation of bid specifications for specialized water/wastewater equipment; contacts equipment manufacturers and representatives for price and service information on equipment, and researches new products and procedures.
- Maintains records on maintenance and repair activities, including preventive maintenance schedules.

REQUIREMENTS

<u>Knowledge of</u>: principles, methods, techniques and materials of installation, maintenance and repair of related electrical equipment; principles, methods, techniques and materials of the installation, maintenance, and repair of related mechanical equipment; the functioning of pumps and pumping related mechanical systems, generators, and small motors; oils and greases; principles and practices of carpentry work; principles and techniques of troubleshooting and diagnosing mechanical, hydraulic and electrical problems; and safe working practices and techniques.

In addition to the above, the Maintenance Worker II will have knowledge of: principles, methods, techniques and materials of related metal fabrication and cement activities.

Ability to: perform carpentry, plumbing, pipe fitting, and electrical work; troubleshoot mechanical, hydraulic, and/or electrical problems; rebuild pumps, compressors, blowers, and related equipment; read and interpret building plans, schematics, blueprints; manuals, etc.; diagnose and repair mechanical and electrical equipment; operate equipment such as brush mower, backhoe, loader, and forklift; communicate effectively, both orally and in writing; maintain accurate written records of work performed; and establish and maintain effective working relationships with those contacted in the course of work.

In addition to the above, the Maintenance Worker II will have the ability to: weld and perform related metal fabrication techniques; perform related cement work, including designing and building forms and lays and performing finishing duties.

OTHER REQUIREMENTS

- Must possess a valid California Driver's License.
- Must be willing to work nights, weekends, on-call and overtime as necessary.

In addition to the above, the Maintenance Worker II:

• Must possess a valid Grade I (or higher) CWEA Plant Maintenance Technologist Certificate.

PHYSICAL REQUIREMENTS

Must be able to perform the physical aspects of the job, including working in or under cramped spaces and/or confined spaces; climbing ladders; working on structures up to 40 feet; lifting or carrying up to 50 lbs.; lifting and carrying, with assistance, up to 150 lbs.; standing or performing heavy physical labor on a sustained basis; working outside in all weather conditions; working around a wide variety of hazardous and toxic materials, including chlorine, sulfur dioxide, methane, fluoride, and raw sewage.

EXPERIENCE AND TRAINING

Any combination of training and experience that would provide the required knowledge, skills, and abilities is qualifying. A typical way to obtain the required qualifications would be:

Maintenance Worker I and II: Equivalent to graduation from high school.

<u>Maintenance Worker I:</u> At least one (1) year experience in the troubleshooting, maintenance, and repair of electrical and/or mechanical equipment.

<u>Maintenance Worker II:</u> Satisfactory demonstration of at least two (2) years experience independently performing the duties of Water/Wastewater Maintenance Worker I, and the ability to perform the specific tasks established for promotion to the position.