WATER/WASTEWATER MAINTENANCE CREW LEADER/OPERATOR II

DEFINITION

Under the direction of the Water/Wastewater Superintendent maintains and repairs electrical and mechanical equipment in the wastewater collection system, lift stations, water booster stations, and the water/wastewater treatment plants in compliance with State and Federal regulations; designs, constructs and retrofits water/wastewater facilities equipment; performs all duties of a Water/Wastewater Treatment Plant Operator as necessary; trains and coordinates the work of Water/Wastewater Maintenance Worker and/or Water/Wastewater Maintenance Specialist; and performs all other related duties as assigned.

EXAMPLES OF ESSENTIAL DUTIES

- Inspects and maintains water and wastewater treatment and collection pumps, electric motors, electrical panels, and drive systems; removes, repairs, rebuilds, tests and installs a wide variety of electrical and mechanical equipment, including pumps, hydraulic systems, electric motors, and control circuits.

- Maintains inventory of spare/replacement parts and equipment.

- Inspects and maintains a wide variety of water/wastewater system components, including aeration equipment, dewatering equipment, specialized equipment used on potable water tanks, and wastewater collection and transmission lines.

- 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.

- Operation and connection of emergency generators and transfer switches.

- Designs and fabricates pipe and electrical systems for new equipment and equipment upgrades; designs and builds forms and lays and finishes cement pads for pump and equipment bases; constructs conduit systems for electrical wiring; may machine parts for water and wastewater equipment; and welds, cuts and fabricates steel support structures for water and wastewater equipment and buildings.

- Prepares bid specifications for specialized water/wastewater equipment; monitors contracted electrical work; provides input to the Water/Wastewater Superintendent as part of the budget development project; and maintains records on maintenance and repair activities, including preventive maintenance schedules.

- Repairs dikes and weir boxes; cleans and disinfects storage tanks and plant equipment; cleans, steam cleans, sandblasts and paints equipment; flushes and cleans water mains and hydrants; changes oil in equipment and gear boxes; lubricates and greases bearings, gears, chains, seals and couplings; and assists in the changing and moving of chlorine and sulfur dioxide gas containers/cylinders.

- Coordinates the work of Water/Wastewater Maintenance Worker, Water/Wastewater Maintenance Specialist and/or other assigned personnel.

- Provides management with recommendations, costs and designs for equipment maintenance and replacement.

- Contacts equipment manufacturers and representatives for price and service information on equipment, and researches new products and procedures.

- Performs all duties of a Water/Wastewater Treatment Plant Operator as necessary; participates in the operation and maintenance of the water/wastewater treatment plants, wastewater lift stations, wastewater collection systems, water pump stations, and the water storage and distribution system.

- Performs all other related duties as assigned.

REQUIREMENTS

Knowledge of: Standard principles, methods, techniques and materials of electrical installation, maintenance and repair; principles, methods, techniques and materials of mechanical work; the functioning of pumps and pumping related mechanical systems, generators, and small motors; principles and techniques of advanced metal fabrication; the repair and maintenance of electrical motors and related electrical equipment; lubricating products; principles and practices of carpentry work; the principals and practices of water delivery systems and equipment and wastewater collection systems and equipment; principles and techniques of troubleshooting and diagnosing mechanical, hydraulic equipment, and diagnosing and repairing electrical problems; and safe working practices and techniques.

Skill in: Designing and laying out water and wastewater system components; the building trades, including advanced carpentry, plumbing, pipe fitting, and electrical work; troubleshooting mechanical, hydraulic equipment; troubleshooting and repair of electrical problems; advanced welding and related metal fabrication techniques; rebuilding pumps, compressors, blowers, and related equipment; the use of precision measuring equipment; reading and interpreting building plans, schematics, blueprints; manuals, etc.; diagnosing and repairing mechanical and electrical equipment; communicating effectively, both orally and in writing; maintaining written records of work performed; and establishing and maintaining cooperative and effective working relationships with supervisors, co-workers, vendors , suppliers, and the general public; heavy equipment operation; crane, brush mower, backhoe, hydro-cleaner and rodder.

ADDITIONAL REQUIREMENTS

- Must possess a valid California Driver's License.
- Grade I Wastewater Treatment Plant Operator Certificate, as issued by the State Water Resource Control Board.
- Grade I Water Treatment Plant Operator Certificate, as issued by the State Department of Health Services.
- Grade II Water Distribution Certificate, as issued by the State Department of Health Services.
- Grade II or higher Plant Maintenance Mechanical Technologist Certificate, issued by California Water Environment Association.
- Must be willing to work nights, weekends, on-call and/or overtime as necessary;
- Must be able to handle the physical aspects of the job, including working in or under cramped spaces, climbing 45 foot ladders, lifting or carrying 100 pounds, and performing heavy physical labor on a sustained basis;
- Must be willing to work around a wide variety of hazardous and toxic materials, including chlorine, sulfur dioxide, fluoride, and raw sewage.

TRAINING AND EXPERIENCE

Applicants must have experience and training demonstrate possession of the required knowledges and skills outlined above. An example would be: A minimum four years experience in the potable water treatment and storage and wastewater collection/treatment fields, including substantial experience in the maintenance of water/wastewater equipment, and in troubleshooting, diagnosing, and repairing a wide variety of mechanical hydraulic and electrical equipment.