



City of Phoenix OPERATIONS & MAINTENANCE TECHNICIAN

JOB CODE 50370

Effective Date: 1/14

DISTINGUISHING FEATURES OF THE CLASS:

The fundamental reason this classification exists is to operate and maintain pumps and mechanical equipment at water or wastewater treatment plants, pumping stations, deep well sites, lift stations or booster stations. Incumbents operate and maintain water/wastewater treatment processes and equipment to control flow, process water/wastewater sludge and maintain effluent quality. Employees within this class perform a full range of duties as assigned including the performance of routine operation and maintenance duties of a water/wastewater treatment plant, facility, or system, operating the full range of equipment and provide training to less experienced Operators. Work is performed under the general supervision of an Operations & Maintenance Supervisor, and the general direction of Senior Utility Operator, Maintenance Planner/Scheduler, or an Industrial Maintenance Mechanic, who reviews work while in progress and upon completion. Some positions will require shift, weekend, standby and holiday work hours.

ESSENTIAL FUNCTIONS:

- Operates various types of equipment such as pumps, gates, valves, analyzers, centrifuges, and blowers used in water or wastewater treatment facilities and systems in accordance with established procedures;
- Observes and monitors data, machinery, and equipment to determine compliance with prescribed operating and safety standards;
- Compiles data for daily operational reports, inventory control, and other day-to-day reporting activities;
- Computes chemical dosages and adjusts chemical feed equipment for proper operation and application;
- Performs diagnostic evaluation of equipment and recommends corrective action for operational problems;
- Responds to emergency call outs, troubleshoots problems and takes actions to ensure plant / system integrity;
- Repairs mechanical equipment such as pumps, valves, motors, sludge removal machines, centrifuges, chemical feeders, blowers, coolers, air compressors, and heating equipment in a water or wastewater treatment plant; reclamation plants, groundwater wells, pumping stations, lift stations and reservoirs;
- Repairs horizontal and vertical drive centrifugal pumps;
- Diagnoses equipment problems and determine repairs needed;



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- Performs maintenance tasks for treatment plant systems and sub-systems associated with: bar screens, grit collectors, chemical feed systems, basins, digesters, and sludge handling equipment;
- Performs primary maintenance tasks at remote facilities associated with booster stations, sewer lift stations, pressure reducing valves, metering stations, tank sites, and distribution chlorination stations;
- Assists in unloading, transferring, storing, and using various hazardous chemicals;
- Responds to emergency call outs, troubleshoots problems and takes actions to ensure plant, station integrity;
- Takes process equipment/trains in and out of service;
- Assists in monitoring, inspecting and documenting processes and system performance;
- Ensures operations are conducted to comply with all environmental, health and safety, standards established by federal, state, county, and city laws, ordinances and regulations, and Department and divisional policies;
- Obtains samples and performs routine laboratory analyses to determine chemical feed and facility performance;
- Assists or installs new mechanical equipment in a water or wastewater treatment facilities and systems;
- Overhauls machines/equipment by tearing down equipment, removing, and repairing or replacing damaged machine parts;
- Operates computer based programs such as computerized maintenance management and facility distributed control system;
- Maintains legible, accurate records of shift operations and updates the treatment process computer database;
- Operates power driven machinery such as fork lifts, boom trucks, cranes, jack hammers, tampers, or other similarly sized equipment;
- Maintains regular and reliable attendance;
- Demonstrates superior seamless customer service, integrity, and commitment to innovation, efficiency, and fiscally responsible activity.

Required Knowledge, Skills and Abilities:

Knowledge of:

- Elementary principles of chemistry, biology, general science, and mathematics, including addition, subtraction, multiplication, division, and basic algebra.
- Basic mechanical, hydraulic and laboratory principles.
- Modern water/wastewater treatment methods, theories and practices.
- Standard process control and operation practices associated with water and wastewater plants, water distribution and wastewater collection facilities.



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- Occupational hazards and necessary safety precautions applicable to mechanical maintenance and repair work, including lockout procedures and confined space entry procedures.
- Methods, practices, tools, and materials used in maintaining, repairing or constructing water/wastewater treatment plant and booster/lift station equipment.
- Computerized maintenance management systems and distributed control systems.
- Email, spreadsheet, and word processing software.

Skill in:

- Use and care of common hand tools and special tools and equipment used in the maintenance of large complex machinery and equipment.
- The use of precision measuring equipment such as micrometers and dial indicators.

Ability to:

- Use a computer to input and retrieve information.
- Read and interpret gauges, meters, and other recording devices to analyze data and initiate process changes.
- Adjust, align and lubricate equipment in compliance with preventative maintenance programs.
- Clean equipment and facilities using various tools including hoses and power washing equipment.
- Monitor, troubleshoot, and repair equipment for proper operation.
- Work cooperatively with other City employees to foster teamwork.
- Communicate with co-workers verbally and in writing.
- Understand and follow oral and written instructions in the English language.
- Comprehend and interpret drawings, specifications, and blueprints, then make inferences from incomplete information.
- Produce written documents with clearly organized thoughts using proper sentence construction, punctuation, and grammar.
- Work in a variety of weather conditions with exposure to the elements.
- Travel across rough, uneven or rocky surfaces to access equipment that requires repair.
- Work with and around chemicals, effluent or similar solutions using approved personal protective equipment.
- Move heavy objects (50 pounds or more) long distances (20 feet or more).
- Climb ladders or steps to monitor machinery and equipment.
- Work in small, cramped areas to repair equipment.
- Work safely without presenting a direct threat to self or others.
- Measure distance using a tape measure or calibrated instruments.



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- Coordinate the movement of more than one limb simultaneously to repair equipment or operate machinery.
- Bend or stoop repeatedly or continually over time to repair equipment.
- Lift arms above shoulder level to work on equipment.
- Learn job-related material through oral instruction and observation or through structured lecture and reading. This learning takes place in both on-the-job training settings and in classroom settings.

Additional Requirements:

- Positions require the use of personal or City vehicles on City business. Individuals must be physically capable of operating the vehicles safely, possess a valid driver's license and have an acceptable driving record. In addition, individuals may be required to pass an Arizona Department of Transportation physical exam and possess the appropriate commercial driver's license (CDL). Pre-employment drug testing is required for CDL positions. Employees in CDL positions will be subject to unannounced alcohol and drug testing as a condition of continued employment. Use of a personal vehicle for City business will be prohibited if the employee does not have personal insurance coverage.
- Positions with SCBA assignment will be required to maintain annual Self-Contained Breathing Apparatus (SCBA) certification through refresher training and annual physical examination per Occupational Safety and Health Administration standards.
- Possession of a Grade I Arizona Department of Environmental Quality certification in appropriate discipline at time of application.
- Possession of a Grade II Arizona Department of Environmental Quality certification in appropriate discipline before the end of probation. Appropriate certification must be maintained as a condition of employment in this classification.
- Some positions will require the performance of other essential and marginal functions depending upon work location, assignment, or shift.

ACCEPTABLE EXPERIENCE AND TRAINING:

One year experience of operations and maintenance of the water/wastewater treatment plant, facility, or system including the repair of pumps, valves, and motors in a municipal or industrial setting, or completion of the City of Phoenix O&M Technician Trainee program. Other combinations of experience and education that meet the minimum requirements may be substituted.