



Job Description

Please note this job description is not designed to cover or contain a comprehensive listing of activities, duties or responsibilities that are required of the employee for this job.

Job title	Mechanical Maintenance Technician I/II
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GENERAL PURPOSE

Under immediate (Mechanical Maintenance Technician I) to general (Mechanical Maintenance Technician II) supervision, performs a wide variety of skilled duties in the installation, modification, design, maintenance, and repair of mechanical equipment and machinery used in the operation of large state-of-the-art water and reclaimed water stations, and wastewater treatment facilities; maintains a diverse range of mechanical equipment and appurtenances in raw sewage lift stations, pumping stations and deep wells; and performs related duties as assigned.

DISTINGUISHING CHARACTERISTICS

Mechanical Maintenance Technician I: This is the entry-level classification in the Mechanical Maintenance Technician I/II series. Initially under close supervision, incumbents learn and perform routine duties in the installation, modification, design, maintenance, and repair of mechanical equipment and machinery. As experience is gained, assignments become more varied, complex, and difficult; close supervision and frequent review of work lessen as an incumbent demonstrates skill to perform the work independently. Positions at this level usually perform most of the duties required of the positions at the Mechanical Maintenance Technician II level but are not expected to function at the same skill level and usually exercise less independent discretion and judgment in matters related to work procedures and methods. Work is usually supervised while in progress and fits an established structure or pattern. Exceptions or changes in procedures are explained in detail as they arise.

Mechanical Maintenance Technician II: This is the fully qualified journey-level classification in the Mechanical Maintenance Technician I/II series. Positions at this level are distinguished from the Mechanical Maintenance Technician I level by the performance of the full range of duties as assigned, working independently, and exercising judgment and initiative. Positions at this level receive only occasional instruction or assistance as new or unusual situations arise and are fully aware of the operating procedures and policies of the work unit.

This class is distinguished from the Senior Mechanical Maintenance Technician in that the latter performs the more complex work assigned to the series and/or provides technical and functional direction over lower-level staff.

Employees in this classification are subject to on-call, which may include rotating-duty schedule, weekends and 24-hour emergency call out with little or no notice.

SUPERVISION RECEIVED AND EXERCISED

Receives immediate (Mechanical Maintenance Technician I) to general (Mechanical Maintenance Technician II) supervision from the Mechanical Maintenance Supervisor. Exercises no direct supervision over staff.

TYPICAL 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.

Positions at the Mechanical Maintenance Technician I level may perform some of these duties and responsibilities in a learning capacity.

- Performs a variety of skilled duties involved in the inspection, diagnosis, troubleshooting, maintenance, repair and servicing of field and shop equipment, components, facilities, and machinery used in the operation of large state-of-the-art water, reclaimed water and wastewater treatment stations and facilities.
- Maintains a diverse range of mechanical equipment and appurtenances in sewage lift stations, pumping stations, and deep wells including but not limited to pipes, tubes, rods, seals, shafts, stuffing boxes, gears, motors, bearings, couplings, chemical production, storage and feed systems, valves, and pumps.
- Installs and/or rebuilds existing pumps and valves at lift stations, wells, tanks, ponds, pumping plants and water process facilities; fabricates and installs piping for new pump installations which may include plumbing, pipe fitting, welding, and machine tool operations.
- Performs lift station operational duties; responds to all alarms; performs regular site inspections; receives delivery of chemicals; sets float levels, analyzes incoming flows; analyzes lift operations and predicts maintenance and repair needs and writes work orders; keeps detailed maintenance repair records; coordinates with other District groups, contractors, engineers, City and County officials on all lift station activities.
- Repairs and maintains settling basin machinery, cross-connections, mixers, and hydraulic gates.
- Installs, maintains, and repairs equipment, including natural gas compressors and micro turbines used for power generation, hydraulic and pneumatic systems, booster pumps, disinfection equipment, hydro mechanical systems and related equipment and apparatus.

- Designs, fabricates, replaces, and repairs chemical storage, feed, ultraviolet light disinfection and chemical disinfection system components such as chlorine generation equipment, storage tanks, generators, analyzers, evaporators, chlorinators, distribution lines and valves, and eductor or injector pumps.
- Responds to emergency alarms, determines cause, and provides corrective action; responds to emergency leaks in chemical feed systems and makes emergency repairs to storage tanks and feeders; supplies emergency generators for power outages.
- Researches new operational methods, techniques and equipment and recommends their application; makes suggestions for system design and operational improvements.
- Plans and lays out jobs from blueprints, drawings, sketches, or verbal instructions; maintains records in the form of blueprints, plans and specifications for industrial equipment and machinery; requisitions necessary tools, equipment, and supplies.
- Repairs, modifies, and improves equipment and other assets using oxyacetylene, welding equipment, vertical milling machines, lathes, and other fabricating equipment; designs and fabricates a variety of brackets, supports and other metal structures.
- Operates shop bridge cranes, dump trucks, forklifts, compressors, jackhammers, portable and stationary generators, steam cleaners, pneumatic, hydraulic, and electric tools, shop machinery and related tools and equipment; inspects vehicles in preparation for transit to plants and facilities for their respective duties/assignments.
- Fabricates and installs exhaust piping, mufflers, catalytic converters, heat exchangers and associated piping for industrial engines and generators.
- Tests air and sewage for hydrogen sulfide and potential of hydrogen levels; maintains detailed records of the test results for the South Coast Air Quality Management District; maintains and repairs odor control systems; investigates odor complaints made by the public and reports findings.
- Organizes and conducts pump testing with outside utilities; plots and evaluates test results and calculates performance data; determines ground water levels using electrical sounders, air lines or transducers.
- Schedules and coordinates activities with other sections and divisions, including construction crews on valve repairs; ensures the timely and accurate completion of preventive maintenance activities; maintains detailed record keeping in support of computerized maintenance management system (CMMS).
- Observes and complies with all District and mandated safety rules, regulations, and protocols.
- Performs related duties as assigned.

REQUIRED QUALIFICATIONS

Positions at the Mechanical Maintenance Technician I level may exercise some of these knowledge and abilities statements in a learning capacity.

Knowledge of:

- Principles, methods, techniques, tools, and equipment used in the installation, maintenance (predictive, preventive, and corrective) and repair of industrial/mechanical equipment and machinery used in the operation of large state-of-the-art water, reclaimed water, and wastewater treatment stations and facilities.
- Principles of electronic and industrial electricity as it relates to assigned areas of responsibilities.
- Operational characteristics and use of a diverse range of systems such as process and control, and chemical delivery systems.
- Shop mathematics.
- Basic principles of water hydraulics such as reading pump curves and calculating friction loss.
- Use and operation of a diverse range of tools and equipment used in machine shops.
- Cost estimating and basic techniques of engineering and drafting as they apply to assigned responsibilities.
- Codes, ordinances, and regulations pertaining to the trade.
- Principles, methods and techniques of mechanical maintenance, crane operation, rigging, metals identification and welding including techniques and materials.
- Principles and practices of record keeping.
- District and mandated safety rules, regulations, and protocols.
- Techniques for providing a high level of customer service by effectively dealing with the public, vendors, contractors, and District staff.
- The structure and content of the English language, including the meaning and spelling of words, rules of composition, and grammar.
- Modern equipment and communication tools used for business functions and program, project, and task coordination, including computers and software programs relevant to work performed.

Ability to:

- Install, diagnose, maintain, and repair a wide variety of industrial/mechanical equipment, systems, and machinery used in the operation of large state-of-the-art water, reclaimed water, and wastewater treatment stations and facilities.
- Design, fabricate, replace, and repair system equipment and components.
- Use precision and diagnostic instruments in assigned areas of responsibility.
- Operate a diverse range of tools and equipment in trades areas such as welding, pipefitting, milling, cranes, and rigs.
- Read and interpret plans, specifications, manuals, and blueprints.

- Use a variety of hand tools, such as pipe-threaders, taps, dies, measuring instruments, and laser alignment equipment.
- Coordinate work assignments with other sections, divisions, or departments.
- Understand, interpret, and apply all pertinent laws, codes, regulations, policies, and procedures, and standards relevant to work performed.
- Independently organize work, set priorities, meet critical deadlines, and follow-up on assignments.
- Maintain work records, files, and logs.
- Effectively use computer systems, software applications relevant to work performed, and modern business equipment to perform a variety of work tasks.
- Communicate clearly and concisely, both orally and in writing, using appropriate English grammar and syntax.
- Establish, maintain, and foster positive and effective working relationships with those contacted in the course of work.

Experience:

Any combination of experience and education that provides the required knowledge and abilities is qualifying, along with the specific licenses/certifications as outlined below:

- Mechanical Maintenance Technician I: Two (2) years of experience in the installation, maintenance, and repair of mechanical equipment, systems, and components used in water, reclaimed water, or wastewater treatment facilities.
- Mechanical Maintenance Technician II: Four (4) years of progressively responsible experience in the installation, maintenance, and repair of mechanical equipment, systems, and components used in water, reclaimed water, or wastewater treatment facilities, or two (2) years as a Mechanical Maintenance Technician I with the District

Education:

- Mechanical Maintenance Technician I/II: Equivalent to completion of the twelfth (12th) grade. Specialized or technical training in mechanical equipment and machinery maintenance and repair is desired.

Licenses/Certifications:

- Mechanical Maintenance Technician I/II:
 - A valid Class A California driver's license, with tank and hazmat endorsements or the ability to obtain one within twelve months of date of hire, and the ability to maintain insurability under the District's Vehicle Insurance Policy. All District employees required to possess a valid Class A

driver's license for the performance of their duties shall be subject to random drug and alcohol testing pursuant to District policy and federal law.

➤ Mechanical Maintenance Technician II:

- When assigned to Lift Stations section: Mechanical Technologist Grade I Certificate required within 12 months of date of hire; Grade II desired.
- When assigned to Potable Water section: Water Distribution Grade I Certificate required within 12 months of date of hire; Grade II desired.

PHYSICAL DEMANDS

The physical demands described here are representative of those that must be met by employees to successfully perform the essential functions of this class. Reasonable accommodations may be made to enable individuals with disabilities to perform the essential functions.

Must possess mobility to work in the field; strength, stamina, and mobility to perform medium to heavy physical work; to sit, stand, and walk on level, uneven, or slippery surfaces; frequently reach, twist, turn, kneel, bend, stoop, squat, crouch, grasp and make repetitive hand movement in the performance of daily duties; possible entry into confined spaces and the use of confined entry equipment, to climb and descend ladders, to operate varied hand and power tools and construction equipment, and to operate a motor vehicle and visit various District sites; vision to inspect and operate equipment; and color vision to read gauges and identify appurtenances. The job involves fieldwork requiring frequent walking in operational areas to identify problems or hazards, which may include working on live electrical wires. Finger dexterity is needed to operate and repair tools and equipment. Employees must possess the ability to lift, carry, push, and pull materials and objects averaging a weight of 50 pounds or heavier weights, in all cases with the use of proper equipment and/or assistance from other staff.

- Employees must wear and use the proper Personal Protective Equipment (PPE) and be able to perform work while wearing a Self-Contained Breathing Apparatus (SCBA) or Air Purifying Respirator (APR).

WORK ENVIRONMENT

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

Employees work in the field and are exposed to loud noise levels, cold and hot temperatures, inclement weather conditions, road hazards, vibration, confining workspace, raw sewage, chemicals, mechanical and/or electrical hazards, hazardous

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physical substances and fumes, dust, and air contaminants. Employees may interact with upset staff and/or public and private representatives in interpreting and enforcing departmental policies and procedures.

FLEX REQUIREMENTS

Positions in the Mechanical Maintenance Technician I/II class series are flexibly staffed; positions at the Mechanical Maintenance Technician II level are normally filled by advancement from the Mechanical Maintenance Technician I level; progression to the Mechanical Maintenance II level is dependent on (i) management affirmation that the position is performing the full range of duties assigned to the classification; (ii) satisfactory work performance; (iii) the incumbent meeting the minimum qualifications for the classification including any licenses and certifications; and (iv) management approval for progression to the Mechanical Maintenance Technician II level.

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Last Update: August 2022

This job description has been reviewed and approved by all levels of management in cooperation with the union (if applicable):

Approved by:	<i>Board of Directors</i>
Date adopted:	<i>March 29, 2020</i>
Date modified:	<i>August 11, 2022</i>
FLSA determination:	<i>Non-Exempt</i>

Job Description Acknowledgment

I have received, reviewed and fully understand the job description for Mechanical Maintenance Technician I/II. I further understand that I am responsible for the satisfactory execution of the essential functions described therein, under any and all conditions as described.

Employee Name (print): _____ *Date:* _____

Employee Number: _____

Employee Signature: _____