MAINTENANCE MECHANIC I/II

DEFINITION

Under direct or general supervision of the Maintenance Supervisor, inspects, maintains, constructs, installs, troubleshoots, and repairs District water treatment, pumping, conveyance, building, vehicle, equipment, and related infrastructure. Performs mechanical maintenance, preventive maintenance, fabrication, field construction, equipment repair, and related duties required to support reliable District operations.

DISTINGUISHING CHARACTERISTICS

Maintenance Mechanic I is the first working level in the Maintenance Mechanic series. Positions in this class perform a variety of maintenance, construction, mechanical, and equipment-related duties while developing proficiency in the full range of District maintenance activities. Incumbents initially receive closer supervision and progress to general supervision as they demonstrate knowledge and proficiency. Incumbents work under immediate supervision while learning job tasks and progress to general supervision as they learn assigned procedures and responsibilities.

Maintenance Mechanic II is the journey-level class in the Maintenance Mechanic series. It is distinguished from Maintenance Mechanic I by assignment of the full range of skilled duties and greater independence in troubleshooting, repair, construction, and equipment operation. Employees at this level receive only occasional instruction or assistance as new, unusual, or unique situations arise and may be assigned as a lead worker when needed. The classification does not exercise formal supervisory authority.

EXAMPLES OF DUTIES

The duties listed below are illustrative only and are not meant to be a complete, exhaustive listing of all the duties and responsibilities of the Maintenance Mechanic classification:

Mechanical and Plant Maintenance Duties:

- Inspect, troubleshoot, maintain, repair, overhaul, install, and replace pumps, motors, engines, compressors, valves, pressure and flow regulators, emergency power generation equipment, mechanical drives, bearings, seals, and related industrial equipment used in District facilities.
- Perform preventive and corrective maintenance, adjustments, lubrication, alignment, cleaning, servicing, and equipment condition checks on mechanical and electromechanical equipment.
- Use diagnostic and condition-monitoring tools, including electronic test equipment, vibration-analysis equipment, and shaft-alignment tools, and interpret operating data to identify equipment condition and required adjustments or repairs.
- Disassemble pump and mechanical systems, identify worn or failed components, perform or coordinate repairs, and reassemble and test equipment before return to service.
- Maintain and repair hydraulic and pneumatic systems and associated components.

Conveyance, Construction, and Facilities Duties:

- Inspect, clean, construct, maintain, and repair District conveyance and water-system facilities, including recharge basins, canals, ditches, creeks, rivers, drains, pipelines, structures, appurtenances, and related facilities.

- Design, lay out, install, modify, and repair process piping and related mechanical systems within assigned skill and authority.
- Perform welding, cutting, fabrication, assembly, and field fitting of parts, supports, piping, equipment, and structures.
- Perform skilled and semi-skilled building and facility maintenance, including carpentry, plumbing, masonry, painting, minor electrical work, and related repairs within assigned qualifications.
- Operate hand and power tools and small to heavy construction equipment required for excavation, grading, lifting, material handling, facility maintenance, and construction work.

Fleet and Equipment Maintenance Duties:

- Inspect, diagnose, service, and repair gasoline- and diesel-powered vehicles, trucks, construction equipment, and other combustion-powered equipment used by the District.
- Identify mechanical, drivability, or safety-related defects; determine the extent of required repair; and remove equipment from service when continued operation would be unsafe.
- Read and interpret diagnostic information, wiring and mechanical diagrams, service manuals, specifications, and manufacturer information when troubleshooting and repairing equipment.

Work Management, Reliability, and Safety Duties:

- Document inspections, preventive maintenance, repairs, labor, materials, equipment condition, and follow-up work in the District computerized maintenance management system (CMMS) and other required records.
- Analyze equipment problems and recurring failures and provide information or recommendations to improve safety, maintainability, reliability, and equipment performance.
- Estimate materials, tools, equipment, and time needed for assigned work and coordinate parts or vendor support through established District procedures.
- Inspect completed maintenance or repair work performed by others within assigned responsibilities and report deficiencies to the Maintenance Supervisor.
- Follow District safety programs and applicable requirements for lockout/tagout, confined-space entry, excavation/trenching, lifting and rigging, welding/hot work, heavy-equipment operation, fall protection, traffic control, and required personal protective equipment.
- Establish and maintain effective working relationships with District staff, contractors, vendors, outside agencies, customers, and the public.
- Perform other duties as assigned.

Typical Physical Activities:

- Operate District vehicles, construction equipment, and other mobile equipment for District purposes when properly licensed, trained, and authorized.
- Carry, push, pull, reach, and lift tools, parts, and equipment weighing up to 50 pounds, with assistance or lifting devices used when appropriate.

- Stand and walk for extended periods; stoop, kneel, crouch, crawl, climb, and work on uneven terrain while performing field maintenance, construction, and repair work.
- Work safely in and around confined spaces, over or adjacent to water, and at treatment, pumping, conveyance, shop, and remote field facilities.
- Use computers, radios, telephones, diagnostic instruments, hand and power tools, welding/fabrication equipment, and other equipment required for the work.
- Work overtime and respond to emergency call-outs, including nights, weekends, and holidays, when required.
- Work in environments exposed to dust, dirt, grease, lubricants, cleaning solutions, chemicals, poor air quality, wet or slippery surfaces, and significant temperature changes.

EMPLOYMENT STANDARDS

Knowledge of:

- Methods, tools, materials, and equipment used in industrial, utility, mechanical, conveyance, facility, fleet, and construction maintenance work.
- Operating principles and maintenance practices applicable to pumps, motors, engines, compressors, valves, mechanical drives, hydraulic and pneumatic systems, emergency generators, piping, vehicles, and heavy equipment.
- Methods and materials used in welding, fabrication, basic carpentry, plumbing, masonry, painting, and related facility repair work.
- Construction and maintenance practices applicable to canals, pipelines, structures, treatment facilities, pumping facilities, and related water-system infrastructure.
- Basic mechanical and electrical diagrams, repair manuals, equipment specifications, diagnostic information, and shop arithmetic.
- Computerized maintenance management systems (CMMS), maintenance documentation, work-order practices, and basic equipment-history records.
- Safe work practices applicable to industrial maintenance and construction, including confined space, lockout/tagout, lifting and rigging, excavation/trenching, welding/hot work, and heavy-equipment operations.

Ability to:

- Safely use hand tools, power tools, shop equipment, diagnostic instruments, welding/fabrication equipment, and construction equipment appropriate to assigned work and qualifications.
- Inspect, troubleshoot, diagnose, maintain, and repair pumps, engines, valves, vehicles, industrial equipment, hydraulic and pneumatic systems, and related equipment within the scope of the classification.
- Read and interpret mechanical and electrical diagrams, plans, specifications, repair manuals, and manufacturer instructions.
- Perform preventive maintenance and skilled mechanical repair work and accurately document completed work, equipment condition, and follow-up needs.
- Operate District vehicles and construction equipment safely and in accordance with licensing, qualification, and District requirements.
- Understand and carry out oral and written instructions and communicate effectively with supervisors, coworkers, contractors, vendors, outside agencies, and the public.

- Work independently or as part of a crew and, at the Maintenance Mechanic II level, provide technical direction or lead assigned work without exercising formal supervisory authority.

QUALIFICATIONS

Any combination of education and experience that would likely provide the necessary knowledge and abilities is qualifying. A typical way to obtain the knowledge and abilities would be:

Required Certification/Education/Experience/License:

- Certification:
  - Maintenance Mechanic I:
    - No certification required
  - Maintenance Mechanic II:
    - Possession of a Mechanical Technologist Grade 2 (MT2) Certificate from California Water Environment Association (CWEA)
- Education:
  - Completion of a High School Diploma or equivalent.
- Experience:
  - Maintenance Mechanic I:
    - Two (2) years of increasingly responsible experience in general construction, vehicle or equipment repair, industrial maintenance, pump maintenance, or closely related work.
  - Maintenance Mechanic II:
    - Five (5) years of increasingly responsible experience in general construction, vehicle or equipment repair, industrial maintenance, pump maintenance, or closely related work, including experience equivalent to the District's Maintenance Mechanic I level.
- License:
  - Possession of a valid Class C Driver's License issued by the California Department of Motor Vehicles may be required at the time of appointment. Failure to obtain or maintain such required license(s) may be cause for disciplinary action. Individuals who do not meet this requirement due to a physical disability will be considered for accommodation on a case-by-case basis.
  - Possession and proof of a driving record free of multiple or serious traffic violations or accidents for two (2) consecutive years.

DESIRABLE QUALIFICATIONS

- Maintenance Mechanic II:
  - Possession of a California Water Environment Association (CWEA) Mechanical Technologist Grade 2 (MT2) Certificate.

- Possession of a Telescoping Boom Crane Operator License.
- Possession of a California Class A Driver's License.

The specific statements in each section of this job description are not intended to be all-inclusive. They represent typical elements necessary to successfully perform the job.