

SKILLED MAINTENANCE WORKER I

DEFINITION

Under immediate to general supervision, learns and performs skilled trades duties in the fields of electrical, electronic, mechanical, plumbing, painting, carpentry, welding, landscaping, and concrete work maintenance to undertake the installation, alteration, repair, and construction of treatment and pumping plant equipment and facilities; assists in developing and overseeing projects for installation, maintenance, and repair activities; and performs other duties as assigned.

SUPERVISION RECEIVED AND EXERCISED

Receives immediate (Skilled Maintenance Worker) to general (Skilled Maintenance Worker II) supervision from the Collection System Manager.

CLASS CHARACTERISTICS

Skilled Maintenance Worker I is the entry-level class in the skilled Maintenance Worker class series responsible for ensuring that equipment and systems operate effectively and are maintained in a safe and effective working condition. Positions at this level are not expected to function with the same amount of knowledge or skill level as positions at the Skilled Maintenance Worker II level, and do not exercise the same level of independent direction and judgment in matters related to work procedures and methods. As experience is gained, assignments become more varied and are performed with greater independence. 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.

Skilled Maintenance Worker II is the full journey-level class in the Skilled Maintenance Worker class series responsible for performing the full range of duties required to ensure that equipment and systems operate effectively and are maintained in a safe and effective working condition. Incumbents are expected to work independently and exercise judgment and initiative, may provide oversight of contractors on assigned projects. 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.

Positions at the Skilled Maintenance II level are normally filled by advancement from skilled Maintenance I level; progression to the Skilled Maintenance II level is dependent on (i) the incumbent obtaining the required certification and meeting the minimum qualifications for the classification; (ii) satisfactory work performance; (iii) management affirmation that the work performed is consistent with expectations for the classification, and (iv) management approval for progression to the Skilled Maintenance II level.

EXAMPLES OF DUTIES (Illustrative Only)

Management reserves the right to add, modify, change, or rescind the work assignments of different positions and to make reasonable accommodations so that qualified employees can perform the essential functions of the job.

- Installs, modifies, and repairs wastewater mechanical treatment and pumping plant equipment and facilities.
- Assists in developing and overseeing projects for installation, maintenance, and repair activities; develops specifications, including electrical and mechanical design components, equipment, and parts, and reviews submittals; directs contract work as assigned and inspects the work of contractors in progress and upon completion.
- Installs and modifies electrical, electronic circuitry, and systems used to monitor and control plant processes and equipment.
- Troubleshoots, repairs, and maintains electrical and electronic systems that include a variety of equipment and circuitries such as generators, motors and controllers, variable speed drives, laboratory equipment, data communications equipment, two-way base radio stations, repeaters, mobile stations, portable and telemetry stations.
- Troubleshoots, repairs, and maintains mechanical devices and equipment such as valve actuators, clarifier drives, flocculators, grit chambers, hoists, air conditioning units and hydraulic systems; installs odor control units, pumps, pipelines and related fittings, ventilation ducts, shelving, stairways, and electrical conduit.
- Cleans, services, and paints equipment, machinery, structures, pipelines, and related appurtenances.
- Maintains landscaping and control weeds at the treatment plant, pump stations, reclamation areas, and sewer easements. Uses gas or arc welding equipment to cut, heat, weld, or braze.
- Confers with operations staff to determine equipment problems; suggests methods of minimizing such problems in an operational setting.
- Reads and interprets specifications, diagrams, manuals, and other documentation.
- Enters appropriate data into computer systems such as CMMS to ensure preventative maintenance information is utilized and to maintain accurate records of work performed and materials and supplies used.
- Operates heavy equipment, including forklift, overhead cranes, and hoists.
- Performs confined space entry.
- As assigned, may direct the work of contractors and others on a project basis.
- Performs other duties as assigned.

QUALIFICATIONS

Positions at the Skilled Maintenance Worker I may exercise some of these knowledge and abilities statements in a learning capacity.

Knowledge of:

- Methods, tools, and testing equipment used in the installation, maintenance, calibration, and repair of electrical, electronic, and mechanical equipment used in wastewater treatment and pumping facilities, including radios, telemetry equipment, and communications equipment.
- Elements of the National Electrical Code relevant to work performed.
- Techniques for troubleshooting complex equipment problems and estimating time, equipment, and materials to effect repairs.
- Regulations governing maintenance and operation of radios and telemetry.
- A diverse range of digital communications systems related to the work.
- Principles and practices of welding.
- General principles and practices of wastewater treatment.
- Occupational hazards and safety precautions related to job assignments including confined space entry.
- Principles and practices of recordkeeping,
- Modern office practices, methods, and computer equipment and specialized applications related to the work.
- English usage, grammar, spelling, vocabulary, and punctuation.
- Techniques for providing a high level of customer service by effectively dealing with the public, vendors, contractors, and District staff.

Ability to:

- Perform a diverse range of skilled tasks in the implementation of a comprehensive preventive maintenance and repair program for equipment and structures found in a wastewater treatment plant and related facilities in trades areas such as electrical, electronic, mechanical, plumbing, painting, carpentry, welding, and concrete work.
- Interpret electrical and mechanical diagrams, blueprints, and electronic schematic diagrams.
- Troubleshoot and repair complex equipment problems and determining time, materials, and supply requirements.
- Make accurate mathematical calculations.
- Exercise independent judgment in work performed.
- Maintain accurate records of work performed.
- Develop estimates of materials, supplies, and equipment required for jobs and requisition necessary parts and supplies.
- Inspect, coordinate, and oversee work done by outside contractors.
- Operate modern office equipment, including computer equipment and specialized software application programs.
- Use English effectively to communicate in person, over the telephone, and in writing.
- Use tact, initiative, prudence, and independent judgment within general policy guidelines.
- Establish and maintain effective working relationships with those contacted in the course of work.

Education and Experience:

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

Education

Skilled Maintenance Worker I/II: Equivalent to completion of the twelfth (12th) grade.

Experience

Skilled Maintenance Worker I: Two (2) years of experience in the maintenance and repair of electrical, electronic, mechanical equipment, instrumentation, and communication systems such as those found in a wastewater treatment plant OR possession of a Grade I Mechanical Technologist Certificate issued by the California Water Environment Association.

Skilled Maintenance Worker II: Four (4) years of progressively responsible experience in the maintenance and repair of electrical, electronic, mechanical equipment, instrumentation, and communication systems such as those found in a wastewater treatment plant

License and Certifications:

Skilled Maintenance Worker I:

- Must obtain a California Water Environment Association Grade I Electrical Instrumentation Technologist Certificate or Grade I Mechanical Technologist Certificate within 12 (12) months of appointment to the classification.

Skilled Maintenance Worker II:

- Must possess a California Water Environment Association Grade II Electrical Instrumentation Technician Certificate, or Grade II Mechanical Technologist Certificate or obtain within twelve (12) months of appointment to the classification.

PHYSICAL DEMANDS

Must possess mobility to work in a standard wastewater treatment plant; strength, stamina, and mobility to perform medium to heavy physical work, to work in confined spaces and around machines, 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 detect shades of color, read printed materials and a computer screen; and hearing and speech to communicate in person and over the telephone or radio. The job involves fieldwork requiring frequent walking in operational areas to identify problems or hazards. Finger dexterity is needed to access, enter, and retrieve data using a computer keyboard or calculator and to operate above-mentioned tools and equipment. Positions in this classification bend, stoop, kneel, reach, and climb to perform work and inspect work sites. Employees must possess the ability to lift, carry, push, and pull materials and objects weighing up to 100 pounds, or heavier weights with the use of proper equipment and assistance from other staff.

ENVIRONMENTAL CONDITIONS

Employees work in a wastewater treatment plant and field environments and are exposed to loud noise levels, cold and hot temperatures, inclement weather conditions, road hazards, vibration, confining workspace, chemicals, mechanical and/or electrical hazards, and hazardous physical substances and fumes. Employees may interact with upset staff and/or public and private representatives in interpreting and enforcing departmental policies and procedures.

OTHER REQUIREMENTS

Must be available for regular and emergency standby and weekend assignments and to be called-back and work emergency overtime as required.