



Plant and Equipment Mechanic

Purpose of the role:

Under general supervision, performs a wide variety of skilled tasks in the installation, repair, and maintenance of wastewater treatment plant mechanical and electrical equipment including pumps, motors, valves, and engines; operates and maintains a variety of hand and power tools and equipment; fabricates and welds parts and equipment; and performs related duties as assigned.

Distinguishing Characteristics:

Incumbents in this class perform journey-level duties associated with maintenance and repair of wastewater treatment plant equipment. This class is distinguished from the Wastewater Treatment Plant Maintenance Supervisor in that the latter is a full supervisory class providing supervision and work coordination to other maintenance personnel.

The following duties are typical for this classification. Incumbents may not perform all of the listed duties and/or may be required to perform additional or different duties from those set forth below to address business needs and changing business practices.

Essential Duties and Responsibilities:

- Identifies and performs a variety of preventative and predictive maintenance repair work on wastewater treatment plant mechanical equipment and facilities.
- Dismantles, repairs, overhauls, and reinstalls mechanical grinders, pumps, valves, engines, blowers, pneumatic valves, lab equipment, and air compressors.
- Repairs, installs and maintains machinery, back flow prevention devices, digester equipment, bulk chemical storage and delivery systems, and hydraulic devices.
- Operates lathes, drill press, gas welder and cutter, electric welder, arbor press, milling machine, pipe threader, and various hand tools; designs and fabricates replacement parts and equipment.
- Orders the necessary parts to maintain equipment or construct replacement parts.
- Responds to night and weekend emergency calls taking appropriate action as needed.
- Coordinates activities with operations personnel and contractors to ensure uninterrupted treatment process.
- Assists in performing electrical and electronic preventive, predictive, and demand maintenance work.

- Operates various types of equipment such as backhoes, cranes, front-end loaders, hydro trucks, and manlift; monitors equipment maintenance schedule.
- Maintains daily and weekly logs on plant and equipment maintenance activities.
- Performs related duties as required.

The following generally describes the knowledge and ability required to enter the job and/or be learned within a short period of time in order to successfully perform the assigned duties.

Knowledge of:

- Operations, services, and activities of a wastewater treatment maintenance program.
- Tools, materials, and equipment used in maintaining wastewater treatment plant equipment.
- Methods and procedures for maintenance and repair of mechanical equipment, gas and diesel engines, electric motors, pumps, and valves.
- Standard practices, methods, and techniques used in the mechanical trades.
- Operational characteristics of wastewater treatment plant systems and equipment.
- Practices and techniques of metal cutting and welding.
- Effects of hazardous chemical conditions.
- Occupational hazards and standard safety practices.
- Basic office and computer equipment and applicable software applications.

***Desired
Minimum
Qualifications:***

Ability to:

- Perform a variety of repair, maintenance, and servicing tasks involving pumps, motors and valves.
- Operate lathes, milling machines, drill presses, and other equipment and tools to repair and maintain plant equipment and facilities.
- Machine a variety of replacement parts.
- Estimate costs, time, and labor requirements.
- Evaluate equipment problems.
- Maintain, troubleshoot, and repair motor control circuits.
- Read plans and diagrams for equipment and parts.
- Keep maintenance logs and other records and schedule maintenance work using standard office and computer equipment.
- Work under steady pressure with frequent interruptions.
- Respond to night and weekend emergency call outs.
- Learn and apply new information or new skills.
- Communicate clearly and concisely, both orally and in writing.
- Establish and maintain effective working relationships with those contacted in the course of work.
- Respond and perform assigned duties in the event of a City-declared emergency.

Competencies:

- Results Oriented
- Customer-Focused
- Accountable
- Problem Solver and Decision Maker
- Technically Knowledgeable

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

Education:

Equivalent to the completion of the twelfth grade.

***Education and
Experience
Guidelines:***

Experience:

Four years experience in the repair and maintenance of mechanical and electrical equipment such as pumps, motors, valves, and engines.

Licenses; Certificates; Special Requirements:

A valid Class C California driver's license is required.

A State of California Grade II Mechanical Technologist Certificate is highly desirable.

The conditions herein are representative of those that must be met by an employee to successfully perform the essential functions of this job. Reasonable accommodations may be made to enable individuals with disabilities to perform the essential job functions.

***Physical and
Environmental
Conditions:***

Physical: Sufficient physical ability to work indoors and outdoors in all weather conditions; sit, stand, walk on level and slippery surfaces; reach, twist, turn, kneel, bend, stoop, squat, crouch, grasp and make repetitive hand movement; lift, carry and push tools, equipment and supplies weighing 25 pounds or more; climb ladders; use power and noise producing tools and equipment; drive motorized vehicles and heavy equipment. **Vision:** See in the normal visual range with or without correction; vision sufficient to read computer screens and printed documents; and to operate assigned equipment. **Hearing:** Hear in the normal audio range with or without correction.

Environment: Wastewater treatment plant and field environment; exposure to noise, dust, grease, fumes, gases, potentially hazardous chemicals, electrical energy, and inclement weather conditions including wet and/or humid conditions; work in or around water or wastewater; work on slippery surfaces; work in confined spaces; work around moving mechanical parts and moderately loud noise levels; work with frequent interruptions.

*Class specifications are only intended to present a descriptive summary of the range of duties and responsibilities associated with specified positions. Therefore, specifications **may not include all** duties performed by individuals within a classification. In addition, specifications are intended to outline the **minimum** qualifications necessary for entry into the class and do not necessarily convey the final qualifications of incumbents within the position.*

Pursuant to California Government Code Section 3100, all public employees are required to serve as disaster service workers subject to such disaster service activities as may be assigned to them by their supervisor or by law.

Date Adopted: 7/5/03

Date Revised: