

City of Mill Valley



LEAD MECHANIC/ELECTRICAL AND INSTRUMENTATION TECHNICIAN

JOB DESCRIPTION

DEFINITION

Under direction of the Wastewater Treatment Plant (WWTP) Maintenance Supervisor, this position assists in the supervision of the maintenance team, and performs a variety of skilled journey-level mechanical, electrical, electro-mechanical and instrumentation tasks at the wastewater treatment plant and related facilities. Performs other duties as assigned.

SUPERVISION RECEIVED AND EXERCISED

Receives general supervision from the Maintenance Supervisor. Exercises general supervision over the Maintenance Mechanics, Aides and seasonal employees.

EXAMPLES OF IMPORTANT AND ESSENTIAL DUTIES

- Programs, configures, and analyzes recording and electronic or pneumatic control instruments and related equipment; maintains, operates, installs, adjusts, and calibrates systems and equipment.
- Assures that plant instrumentation equipment is maintained and repaired properly to provide safety, reliability, and efficient operations.
- Develops, troubleshoots and maintains sophisticated Programmable Logic Controllers (PLC), maintains Supervisor Control and Data Acquisition (SCADA) system, and Human Machine Interface (HMI) systems.
- Upgrades, tests, calibrates, repairs and maintains all electrical systems, circuits and equipment including, but not limited to the following: electrical motors; pumps; engines; valves; high, medium and low voltage manual and automatic motor control centers; panel boards and switch gears; automatic safety controls; liquid level control indicators, recorders and alarms; pneumatic-electric controls for valve operations.
- As directed, provides project coordination among other City departments, agencies, contractors, and consultants.
- Maintains records of work performed, materials used, equipment deficiencies/needs, safety concerns and similar data as may be applicable to enter into the computerized maintenance program.

- In the absence of the Maintenance Supervisor may be assigned to conduct staff meetings, purchase parts and materials and report to the Chief Treatment Plant Operator or Wastewater Treatment Manager.
- Responds to emergency call-outs 24 hours per day, 7 days a week.
- Perform other duties as assigned.

JOB RELATED AND ESSENTIAL QUALIFICATIONS

Knowledge of:

- The tools and procedures used in mechanical and electrical repair, engine maintenance, and other related trades.
- Regulations and codes applicable to area of assignment (for example, applicable building codes and pertinent permit requirements).
- Math sufficient to calculate volumes, areas, lengths, percentages and conversions, power and voltage, etc.
- Safety hazards associated with electrical and treatment plant maintenance work and mitigating measures.
- SCADA Systems.
- Supervisory controls, including solenoids, mercury switches and relays.
- Installation, maintenance and repair of industrial electrical systems.
- Electronic, digital, and analog circuits and power switching to the component level.
- Maintenance and repair of electric motors, pumps, and valves.
- Theory and practice of the principles of electronics, computer systems, pneumatics, hydraulics, and radio.
- Operation of flow and level measurement, frequency-based and process control systems, and pneumatic systems.
- Computer software as applied to controllers and electronic test equipment used in wastewater treatment and reclamation facilities.
- Basic principles and best practices of supervision and team building.

Skill and Ability to:

- Interpret electrical and mechanical drawings and other technical material.
- Read and interpret work orders, maps, diagrams, blueprints, manuals and specifications.
- Safely operate, maintain, and store the specialized hand tools, power tools, and equipment used in performing work in the area of assignment.
- Efficiently estimate costs, time, and labor requirements from blueprints or work plans.
- Make sound judgments regarding work methods, tools, and safety.
- Diagnose faults in complex electronic and electrical equipment.

- Calculate quantities of materials needed to complete tasks.
- Prepare and maintain accurate records, reports, and work estimates.
- Write work orders, reports, logs, and assist with incident reports when needed.
- Communicate with the public and coworkers in a tactful and effective manner.
- Work effectively individually and as a member of a team.
- Communicate clearly in English verbally and in writing.
- Safely work in a hazardous environment and in emergency situations.
- Organize, plan, supply and direct the work of others.

EDUCATION AND EXPERIENCE:

Any combination of education and experience that demonstrates possession of the requisite knowledge, skills, and abilities. A typical way to obtain these would be:

Education: High school education or equivalent.

Experience: Five (5) years of experience at a journeyman level in the mechanical and instrumentation maintenance of sophisticated plant equipment, preferably wastewater treatment or equivalent. Supervisory experience is highly desirable.

Training & Certificates:

- Possession of a California Water Environment Association (CWEA) Electrical/Instrumentation Grade II Certificate (or equivalent) is required. Note: the CWEA Grade II Certificate is typically a journey-level certification.
- Technical college certification in electricity or electronics, completion of an apprenticeship program, and/or additional relevant CWEA or CSWRCB (California State Water Resources Control Board) certification is highly desirable.

SPECIAL REQUIREMENTS:

- Incumbents may be assigned to weekend shifts, may be placed in on-call status, or may be called out for emergency work at night, on weekends or holidays.
- In emergencies, the Electrical and Instrumentation Technician is subject to call-out, and on a rotating basis is on-call 24-hours a day for a one-week assignment. This requires a reliable means of communication such as a personal phone and/or City-issued cellular phone.
- This classification will require the use of a personal or City vehicle while conducting City business and in order to respond to emergency callouts. In order to drive, individuals must be physically capable of operating the vehicles safely and must possess an appropriate valid California motor vehicle operator's license.

- Must comply with California Sanitation Risk Management Authority Driver Standards within three months of employment.
- Must be capable of wearing a variety of personal protective gear including but not limited to respirator, self-contained breathing apparatus, safety glasses (prescription lenses provided by the City), face shield, gloves, harness, steel toe boots, coveralls, and hardhat.

PHYSICAL DEMANDS:

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

While performing the duties of this job, the employee is regularly required to sit, stand, stoop, bend, kneel, lie down, climb, talk, and hear. This position may require standing, kneeling, or lying for long periods of time, as well as frequent walking and occasional climbing and working at heights. The employee frequently is required to use hands and fingers to use and manipulate tools, controls, equipment, and other objects. The incumbent is frequently required to lift, reach, and extend arms above the head. Job assignments may involve difficult work positions for extended amounts of time.

The employee must regularly lift and/or move up to 50 pounds and occasionally lift and/or move up to 75 pounds. Specific vision abilities required by this job include close vision, distance vision, color vision, peripheral vision, depth perception, and the ability to adjust focus. Constant alertness and good safety work habits are required and necessary to prevent bodily injury.

Work is performed in outdoor and indoor settings; may involve exposure to variable weather conditions, noise, dust, fumes, grease, oil, cleaning chemicals, solvents, hazardous or toxic materials, waste, machinery, and high voltage electricity.

OTHER

<i>FLSA Status</i>	<i>Non-Exempt</i>
<i>Bargaining Unit:</i>	<i>AFSCME</i>
<i>Approved by:</i>	<i>City Manager Piombo</i>
<i>Date:</i>	<i>August 1, 2020</i>