

## ENCINA WASTEWATER AUTHORITY

**DATE:** August 2022  
**POSITION TITLE:** Electrical and Instrumentation Technician Supervisor  
**DEPARTMENT:** Technical Services  
**REPORTS TO:** Maintenance Manager  
**FLSA STATUS:** Non-exempt

**POSITION SUMMARY:** Under general supervision, this position: provides both general and direct supervision of Electrical and Instrumentation field staff; supervises and participates in Technical Services activities and maintenance of complex secondary and tertiary treatment systems of all Authority operated facilities; customarily and regularly exercises discretion, independent judgment, and decision-making to schedule preventative and predictive maintenance activities; plan and schedule in-house special projects; administer outside services contracts; and performs other related duties as assigned

**SUPERVISORY DIMENSIONS:** Exercises both direct and general supervision of Electrical and Instrumentation Technicians. In the absence of the Maintenance Manager or Maintenance Supervisor, supervises Mechanical Technicians as required.

### ESSENTIAL JOB DUTIES:

The duties listed below are intended only as illustrations of the various types of work that may be performed.

- Promote Authority's Mission, Vision, and Values.
- Exhibit all leadership traits and ethical behaviors required of California local government employees.
- Supervise Electrical and Instrumentation Technician staff so that Department plans, goals, and objectives are met, including the development of recommendations regarding work organization, assignments, work schedules, and staff training needs; conducts staff training and develops written training manuals as needed; reviews and approves time sheets; serves on employee interview panels; prepares performance evaluations; and initiates disciplinary actions
- Plan and schedule in-house systems special projects including the installation, overhaul, and repair of plant equipment and modifications to plant facilities.
- Confer with Technical Services, Operations, and Safety personnel to determine needs; verify special conditions and required work practices; perform field inspections and investigations; obtain technical information, plans, sketches, and written instructions; define work scope; estimate time, labor, equipment, and material needs; define safety equipment and permits needs; ensure that parts and materials are on hand; review plans with end users; prepare required work orders; and compile and incorporate completed work documentation into the CMMS.

- Supervises, plans, prioritizes, assigns, reviews, trains and participates in the work of assigned staff responsible for the maintenance, installation, monitoring, testing, troubleshooting and repair of treatment plants and related facilities and equipment, including plant, mechanical, electrical, electronic, pneumatic, hydraulic, control equipment; performs the most complex work of the unit including the maintenance, repair, and installation of lighting systems, sump pumps, controls, motors, transformers, generators, batteries, cranes, variable frequency drives, air conditioners, and switch gears.
- Trains assigned employees in their areas of work including electrical and instrumentation maintenance, repair, installation methods, calibration procedures, and techniques.
- Verifies the work of assigned employees for accuracy, proper work methods, techniques, and compliance with applicable standards and specifications; ensures adherence to safe work practices and procedures.
- Inspects, diagnoses, and develops corrective action plans for complex plants, pump stations, and cogeneration plant for operation and maintenance problems.
- Performs the most complex preventive maintenance duties; inspects equipment; checks voltage and amperage; tightens, cleans, and lubricates equipment; locates potential problems.
- Designs, integrates, and upgrades new systems and/or integrates the design into an existing system.
- Reviews plans and technical specifications and provides input on functional aspects of proposed plant and remotes facilities as well as rehabilitation projects.
- Coordinates, oversees, and participates in the maintenance and repair of electrical equipment at pump stations such as motors, switchgears, and control equipment; generates power at pump stations during outages by connecting emergency generator to pump stations.
- Inspects and audits work processes, reviews task procedures and updates the preventive maintenance based on the findings.
- Prepares complex job plans to support the addition or modification of control systems needed to enhance the operation of wastewater treatment process controls by researching existing control systems; implements additions or modifications by reprogramming software such as ladder logic that interfaces personal computers with programmable logic controllers (PLC's); customizes application programs that interface PLC's; and reprograms human machine interface (HMI) software.
- Performs preventive, predictive, and corrective maintenance on electrical, cogeneration plant and distribution systems including generators, exciters, circuit breakers, generator controls, transformers, engine generator instruments and motors.
- Oversees and participates in maintaining and updating all applicable documents including software and application programs, instrumentation loop drawings, piping, and instrument drawings (P&ID), and electrical ladder schematics.
- Assist with CMMS data entry, task scheduling, and reporting as directed.

- Maintain records, prepare reports, and assist other staff with operating and capital budget preparation.
- Monitor work sites and ensure adherence to safe work practices and procedures; respond to and resolve complex work related or equipment operating problems.
- Plan, organize, control, integrate, and evaluate the work of assigned staff; with staff, develop, implement, and monitor work plans to achieve employee goals and objectives.
- Participate in developing, implementing, and evaluating plans, work processes, systems, and procedures to achieve department goals, objectives, and work standards.
- Performs administrative tasks for the organization as needed.
- Perform other duties as required.

Specific types of knowledge, skills and physical abilities required for these duties:

- Ability to supervise, train, and develop systems personnel and supervise other Technical Services personnel as required.
- Ability to effectively communicate with EWA staff and contractors, provide feedback on the status of work plans and projects, document work progress as required, and promote a positive working environment.
- Knowledge of methods and practices of conflict resolution and negotiation.
- Knowledge of the safe and proper use and operation of various types of hand and power tools, gas and electric cutting and welding equipment, precision measuring devices, test meters, and gauges.
- Knowledge of the safe and proper use of test meters and equipment to troubleshoot and repair various types of motor control, electrical systems, and equipment.
- Knowledge of operations, services, and activities of an electrical and instrumentation maintenance program.
- Advanced principles of electrical and electronic technology principles and practices, theory and design as applied to electrical circuits and wiring systems.
- Advanced methods and techniques of maintaining, installing, and repairing electrical systems and equipment including process control instrumentation.
- Knowledge of safety principles, practices, and procedures of engineering and construction inspection, mechanical equipment, pump stations, chemical handling and gas management systems used in wastewater treatment and wastewater conveyance.
- Knowledge of principles and practices of maintenance program development and administration; advanced predictive, preventive, and corrective maintenance techniques; mathematics and their application to maintenance work; basic principles of budget planning, program development, administration, and accountability.

- Ability to troubleshoot and repair complex problems with mechanical, electrical, and associated systems.
- Proficient in structure and content of the English language, including the meaning and spelling of words, rules of composition, and grammar.
- Proficient in computer fundamentals and Microsoft Office applications (i.e., Excel, Word, PowerPoint, Teams, Outlook), WIMS, CMMS, and Authority's requisition and employee self-services program.
- Working knowledge of safety practices and procedures as they apply to wastewater treatment facilities, pump stations, mechanical equipment, chemical handling, and gas management systems.
- Read and interpret; engineering plans, ladder logic, blueprints, line drawings, and operating and maintenance manuals.
- Ability to think and respond quickly under pressure and in emergency situations.
- Ability to work independently and safely while directing others to do the same.
- Ability to be medically authorized to be fitted for and wear a respirator in accordance with the Authority's Respiratory Protection Policy.
- Ability to withstand exposure to varying weather conditions, work in wet/odorous areas, and work in confined areas, tanks, and structures.
- Ability to withstand strenuous physical activities for extended periods of time to include lifting, bending, carrying, crawling, and climbing.
- Ability to respond to 24-hour call-ins, work varying hours, weekends, holidays, and days off.

**EDUCATIONAL REQUIREMENT:** An associate degree in science, engineering, business, public administration, or a related field of study from an accredited college or university or equivalent knowledge gained by experience.

**EXPERIENCE REQUIREMENT:** Six (6) years of progressively responsible experience in the maintenance, repair, rebuild, and service of electrical, instrumentation, and control systems found in the wastewater industry, to include two (2) years in a responsible lead or supervisory capacity.

**LICENSE REQUIREMENT:** Possession of a valid California Class C Driver's License and ability to be insured under the Authority's automobile insurance coverage. Note: Failure to maintain a valid California Driver's License constitutes possible cause for termination.

**CERTIFICATION REQUIREMENT:** Possession of a valid Grade III California Water Environment Association (CWEA) Electrical/Instrumentation Technologist certification or the ability to obtain certification within 12 months of appointment to the position and maintenance of the certification in an active status.

**PHYSICAL AND MENTAL DEMANDS:**

**Physical Demands**

While performing the duties of this position, the employee is regularly required to walk; talk or hear by telephone and in person; sit; smell; use hands to finger, handle, feel, or operate objects, tools, or controls; reach and lift with hands or arms.

Specific vision abilities required by this job include close vision, distance vision, the ability to distinguish colors and shades, depth perception, and the ability to adjust focus. The employee must regularly lift and move up to 50 pounds.

**Mental Demands**

While performing the duties of this position, employees are regularly required to use oral and written communication skills; read documents or instructions; analyze and solve problems; observe and interpret data or information; use mathematical reasoning; learn and apply new information or skills; perform detailed work; work under changing, intensive deadlines with constant interruptions; and perform multiple concurrent tasks.

**WORK ENVIRONMENT:** While performing the duties of the job, the employee may be exposed to toxic or hazardous chemicals. The noise level in the work environment is quiet to loud. Hearing protection is required in some work areas.

**RESPIRATORY PROTECTION POLICY/PROGRAM REQUIREMENT:** This position must comply with the Authority's Respiratory Protection Policy & Procedures, which requires the use of respirators when conducting specific tasks.

**ADDITIONAL QUALIFICATIONS:** Possession of a good driving record and the ability to be insured by the Authority's insurance carrier; and the ability to read, write, speak, and comprehend English.

**RIGHT TO WORK REQUIREMENT:** Documentation of eligibility to work in U.S. will be required as a condition of employment.

**The Encina Wastewater Authority does not discriminate against any applicant for employment on the basis of age, race, color, sex, ancestry, national origin, pregnancy, marital status, sexual orientation, sexual identity, religion, military status, medical condition, mental disability, or physical disability.**

**The list of essential job duties contained in this job description is not exhaustive and may be supplemented as necessary. This position performs other related duties as assigned, some of which may become essential to the position.**

**Any offer of employment for this position is contingent upon receipt of acceptable results from a background investigation, physical examination, and drug screen.**