

ELECTRICAL TECHNICIAN

STOCKTON EAST WATER DISTRICT

January 9, 2018

SUMMARY

Under general supervision of the Maintenance Supervisor, this individual performs skilled work in the installation, maintenance and repair of electrical, lighting, instrumentation and control, and similar equipment at the Stockton East Water District. The Electrical Technician classification will occasionally assist in the mechanical maintenance of equipment as needed and other work as assigned.

EXAMPLES OF DUTIES

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

Technician Duties:

- Performs each duty in a safe manner.
- Analyzes equipment failures and makes recommendations for improving the reliability of equipment and systems.
- Reads and interprets electrical schematics, mechanical drawings and specifications to install and maintain equipment.
- Installs, maintains and repairs electrical equipment such as motors, motor control centers, VFDs, transformers, power-generating equipment, alarm systems, telemetry equipment, outlets, lighting fixtures, switches, ballasts, and conduit in an industrial environment.
- Installs, maintains and repairs a variety of control and instrumentation devices such as electric actuators, flow meters, pressure sensors, and DP cells.
- Installs, maintains and repairs communication wiring such as RS422, Ethernet, and 4-20ma TSP.
- Coordinates activities with other departments and outside agencies and contractors.
- Maintains a variety of maintenance records, including CMMS (computerized maintenance management system report, drawings, diagrams, and SOPs).
- Evaluates inventory and orders supplies, parts and equipment using CMMS tools.
- Prepares detailed correspondence, and various descriptions of electrical equipment.
- References PLC programs and uses them to troubleshoot automated equipment. Assists the SCADA Technician in troubleshooting ladder logic based PLC programs.
- Performs minor repairs and software installation on personal computers.
- Assists in the maintenance of mechanical equipment as needed.

TYPICAL PHYSICAL ACTIVITIES:

- Operates District vehicles for District purposes.
- Carries, pushes, pulls, reaches, and lifts equipment weighing up to 50 lbs.
- Stoops, kneels, crouches, crawls, and climbs during vehicle and equipment maintenance and repair work.
- Communicates orally with individuals and/or groups of District staff.
- Regularly uses a telephone for ordering parts and coordinating work.
- Exposure to dust, lubricants, cleaning solutions, and chemicals.

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- Hearing and vision within normal ranges with or without correction.
- Stands and walks for extended periods of time.

EMPLOYMENT STANDARDS

Knowledge of:

- Electrical theory and the methods, tools, equipment, and materials used in the electrical trade and their applications
- Understanding of the NEC, NFPA 70E, Cal/OSHA and other applicable regulations, codes, and standards.
- Installation techniques and the hazards involved in working with the full spectrum of voltages ranging from 24 volts DC to 600 volts AC.
- Safety practices in working around the full spectrum of voltages from 600 volts AC to 12,000 volts AC.
- Instrumentation and process control loops.

Ability to:

- Use and wear safety equipment, protective gear, and respirators.
- Recognize, diagnose and repair electrical and instrumentation problems with electrical and instrumentation systems and equipment.
- Plan, layout, and perform difficult electrical and instrumentation work involving the maintenance, repair, and installation of various types of electrical and instrumentation equipment.
- Read, interpret, and prepare electrical diagrams, loop diagrams, specifications, and list material requirements.
- Establish and maintain cooperative working relationships with co-workers, outside agencies and the public.

Foundational abilities:

- Must possess good verbal and written communication skills, including the ability to write reports and develop written Standard Operating Procedures, and maintain detailed records.
- Communicates well with individuals and/or groups of District staff.
- Must be computer literate. Possess experience creating Microsoft Word, Excel, and Outlook documents. Touch typing ability at 25 wpm or better.
- Familiar with the use of a modern CMMS.
- Respond to emergency call-outs on nights, weekends, and holidays.

Environmental factors:

- Exposure to the sun: 50% to 100% spent outside a building and exposed to the sun.
- Work above floor level: Some work done on ladders other surfaces from 4 to 12 feet above the ground.

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- High Temp: Some work time spent in temperatures between 80 to 90 degrees.
- Humidity: Occasional work in areas with unusually high humidity.
- Wetness: Occasional work time getting part of the body and /or clothing wet.
- Noise: Some work time spent in areas with a noise level requiring the use of hearing protection.
- Slippery Surfaces: Occasional work on unusually slippery surfaces.
- Oil: Some parts of the body in contact with oil or grease occasionally.
- Dust: Works in or around areas with minor amounts of dust.
- Occasional irregular or extended work hours.
- Occasional Permit Required Confined Space Entry Work.

DESIRABLE 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:

- High School diploma or equivalent.
- Completion of electrical apprentice training.
- Four (4) years of journeyman level work experience in at least one of the following areas: Industrial Electrician, Instrumentation and device control.
- Experience working on electrical controls and instrumentation is desirable.

License/Certificate/Registration Requirement:

- Driver's License: Possession of a valid California Class C Driver's License 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. Proof of good driving record as evidenced by freedom from multiple or serious traffic violations or accidents for at least two (2) years duration.
- Employee with the Class Title of Electrical Technician shall be qualified for "overtime work" as defined in Section 3.02. B of the district's Employee Handbook and should be prepared to work occasional overtime as needed.

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