City of Woodland

ELECTRICAL/ELECTRONICS/INSTRUMENTATION TECHNICIAN

DEFINITION

Installs, tests, maintains, calibrates, troubleshoots, and repairs City-owned electrical, electronic and instrumentation systems such as traffic signals, street lights, pumping stations, water treatment plants, recreation fields, emergency back-up power, utility plants, and City-owned buildings.

SUPERVISION RECEIVED AND EXERCISED

General supervision is provided by the Electrical Supervisor or his/her designee. This is a journey level position and may include lead supervision of less experienced personnel/temporary workers.

EXAMPLES OF DUTIES

The following are typical of duties encompassed by the position, not an all inclusive or limiting list:

ESSENTIAL JOB FUNCTIONS

Installs, maintains, repairs, calibrates, programs and tests a wide variety of electrical/electronic/instrumentation equipment. Reads and interprets circuit diagrams, ladder logic, construction drawings, and service and repair manuals. Prepares plans and specifications for the procurement of parts and supplies on assigned projects. Ensures that proper safety precautions and safe work methods are followed. Assists with the preparation of standard operating procedures. Regular and consistent attendance.

OTHER JOB FUNCTIONS

Prepares and maintains accurate maintenance and repair records. Presents oral and written reports. Performs electrical Inspections. Uses and maintains a variety of tools and test equipment, utilizes self-contained breathing apparatus (SCBA) as required. Answers emergency calls and performs emergency repairs. Meet all Standby Program requirements, take standby duty, work any shift including weekends and holidays. Perform related duties as assigned.

QUALIFICATIONS:

Knowledge of:

Electrical and electronic equipment, personal computers, SCADA and telemetry, and operational and maintenance software programs. Methods, tools, and equipment, used

to maintain, repair, test, calibrate and perform preventative maintenance on a wide variety of electrical, electronic and instrumentation systems. Safe work practices, applicable codes, laws and ordinances, circuit diagrams, and shop mathematics.

Skill to:
Use electrical and electronic tools and equipment skillfully and safely. Read and follow electrical plans and specifications. Keep written records.

Ability to:
Diagnose malfunctions in a variety of electrical, electronic and instrumentation systems. Use and care for tools and test equipment used in maintaining and repairing electrical, electronic and instrumentation systems. Make cost estimates of labor and materials, maintain detailed records, and make oral and written reports. Follow oral and written directions. Read and interpret electrical and mechanical drawings, plans and specifications. Establish and maintain effective work relationships with those contacted in the performance of required duties. Maintain effective audio-visual discrimination and perception needed for making observations, communication with others, and reading, writing, and operating assigned equipment. Apply good judgment and practical knowledge to help resolve unusual or irregular problems in the area of work assigned.

Minimum Education and Experience:

Education:
High school diploma or equivalent. Associate degree in electronics, instrumentation, electrical technology, or closely related field is highly desirable.

Experience:
Three years of recent experience in electrical/electronics/instrumentation installation, maintenance or repair. One year of full-time college level coursework in electrical, electronics, instrumentation or equivalent training in a recognized trade or technical school may be substituted for one year of the required experience, with a maximum substitution of two years of experience.

License and Certificates:
Possession of a valid California Driver's License, is required upon hire. Possession of a valid International Municipal Signal Association (IMSA) Level I Technician Series, and Work Zone Safety Level Certification prior to permanent appointment. The IMSA Level II is required within one year after permanent appointment. California Water Environment Association (CWEA) Electrical/Instrumentation Technologist Level II certificate is desirable.

Council Action: September 7, 2010