

SENIOR ELECTRONICS TECHNICIAN

DEFINITION

To organize, assign, and review the work of personnel engaged in the installation, testing, maintenance, calibration, repair and modification of electrical and electronic equipment and traffic signals.

DISTINGUISHING CHARACTERISTICS

This is the advanced journey level class in the Electronics Technician series. Positions at this level are distinguished from other classes within the series by the level of responsibility assumed, complexity of duties assigned, independence of action taken, by the amount of time spent performing the duties, and by the nature of the public contact made. Employees perform the most difficult and responsible types of duties assigned to classes within this series, including providing technical and functional supervision and performance of advanced journey level activities. Employees at this level are required to be fully trained in all procedures related to assigned areas of responsibility.

SUPERVISION RECEIVED AND EXERCISED

Receives direction from higher level supervisor.

Exercises technical and functional supervision over electronics technician staff.

EXAMPLES OF ESSENTIAL DUTIES - Duties may include, but are not limited to, the following:

Plan, prioritize, lead, review, and participate in the work of staff involved in installing, servicing, operating, testing, and repairing lights, ballasts, switches, motors, air conditioning units, street lights, traffic signals, and other similar electrical and electronic devices.

Plan, assign, review and participate in the maintenance of sewage plant equipment such as motor control and automatic switchgear, storm and sewage pumps; install and maintain well starters and related automatic control equipment such as high-voltage circuit breakers, air switches, control wires and protective relays.

Develop schedules and methods to accomplish assignments ensuring all work is completed in a timely and efficient manner.

Provide or coordinate staff training; work with employees to correct deficiencies.

Participate in evaluating the activities or staff, recommending improvements and modifications.

Senior Electronics Technician

- 2-

Troubleshoot electrical devices and traffic signals; diagnose potential problems and repair or replace devices as required.

Participate in the design and engineering of electronic components and systems; set, test and repair all types of electric meters; perform plan checks for signal related projects to ensure accuracy.

Repair computer controllers for traffic signals and motor controls for pumps; program computers for various types of signal control work; troubleshoot hardware and software related problems; install, wire and repair computer mainframes and personal computers; maintain ITS system servers, software and network; perform software and firmware updates to equipment.

Perform scheduled preventative maintenance; answer emergency and trouble calls regarding burned-out fuses; replace broken wires or light standards; receive and respond to incoming and citizen concerns regarding signal malfunctions.

Test emergency generators at various City buildings; clean lubricate and inspect electrical equipment; install energy saving devices in air conditioners; repair air conditioner units as necessary.

Install, configure, and maintain control, video, and communications equipment.

Install and maintain telemetering, pilot wire equipment and City-owned and leased communications equipment; locate and make recommendations to correct radio interference.

Set and service electrical voltage recording devices; locate underground electrical conductors to prevent damage; inspect and repair new and damaged buried cables; supervise contractors performing installation and repair work near cables.

Operate equipment in a safe and efficient manner in a variety of hazardous environments including toxic liquids and gases and high voltages.

Maintain work and inspection records; prepares reports as required.

Build and maintain positive working relationships with co-workers, other City employees, and the public using principles of good customer service.

Inspect traffic signal construction.

Perform related duties as assigned.

MINIMUM QUALIFICATIONS

Knowledge of:

Senior Electronics Technician

- 3-

Principles and practices of lead supervision including safety practices and related record-keeping.

Principles, methods, materials and equipment used in the installation, testing, maintenance and modification of electrical and electronic systems and equipment.

Types of tools, methods and materials used in electrical work.

Components and parts used in modern street lighting; traffic signals, Intelligent Transportation Systems (ITS), water pumping, heating, air conditioning and ventilation systems.

Federal, state and local laws, codes and regulations pertaining to traffic signals and electrical line maintenance.

Safe work practices.

Computer hardware and software.

Ability to:

Act as lead worker and perform advanced journey level installation, testing, maintenance, calibration, repair and modification of electrical and electronic equipment and traffic signals.

Perform maintenance, troubleshoot, and repair work on a variety of electrical and electronic equipment and devices.

On a continuous basis, know and understand operations, and observe safety rules; intermittently analyze problem equipment; identify and locate equipment; interpret work orders; remember equipment location; and explain jobs to others.

Intermittently, sit while studying or preparing reports; bend, squat, climb, kneel and twist when installing, repairing, and servicing equipment; perform simple and power grasping, pushing, pulling, and fine manipulation; and lift or carry weight of 50 pounds or less.

Understand and interpret written and oral instructions, electrical drawings, blueprints, plans and wiring diagrams.

Use and care for tools and equipment used in maintaining and repairing electrical and electronic devices.

Apply federal, state and local laws, codes and regulations pertaining to electrical line maintenance.

Senior Electronics Technician

- 4-

Work safely under emergency and hazardous conditions including live traffic.

Plan, and assign the work of a small crew.

Maintain work records.

Communicate clearly and concisely, both orally and in writing.

Establish and maintain cooperative working relationships with those contacted in the course of work.

Experience and Training

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

Experience:

Two years of experience performing work similar to that of an Electronics Technician II with the City of Roseville.

Training:

Equivalent to the completion of the twelfth grade supplemented by specialized training in solid state electronics, electric utility equipment or a related field, OR college level courses in electronics or a related field.

License or Certificate

Possession of, or ability to obtain, a valid California driver's license.

Possession of an International Municipal Signal Association Level 3 Traffic Control certificate if assigned to Public Works Traffic Signals.

05-12-07

03-31-98

06-12-97

10-01-88

09-16-87

08-01-86 Senior Electronics Technician