



Electrician

Department/Division:	Public Works
Reports To:	Supervisor/Manager
Provides Direction To:	N/A
Bargaining Unit:	Teamsters
Exemption Status:	Non-Exempt
Employment Status:	Classified
Date Prepared:	February 1, 2005
Date Revised:	May 16, 2019

DEFINITION

Under general supervision, performs journey level work in installing, maintaining and repairing electrical wiring systems and equipment throughout the City; performs other related work as assigned.

ESSENTIAL JOB FUNCTIONS

1. Installs electrical conduits, tests for defects, removes, replaces and repairs worn or defective wiring, outlets, fixtures, telemetry and instrumentation equipment according to approved codes.
2. Performs preventative maintenance on electrical equipment.
3. Performs field maintenance on switches, panels, pumps, motors, generators, light and power circuits including street lighting systems and other types of electrical lighting and power equipment.
4. Installs and assembles lighting fixtures; wires electrical control equipment; repairs and services electrical equipment including bearings.
5. Maintains and repairs auxiliary power units.
6. Tests established circuits for overload and determines circuit requirements for additional electrical equipment.
7. Assists in reviewing plans, designing and construction of new electrical systems; orders, stocks and maintains electrical equipment tools and supplies for City facilities and equipment.

8. Estimates cost of an electrical repair or installation job.
9. Assists with managing projects as assigned; oversees vendors/contractors and colleagues when needed.
10. May assist with other divisions when needed with direct supervisor's/manager's approval.
11. Shift work, weekends, and/or holidays may be required.

Depending on the Division assigned to, certain job functions are required as follows:

Facilities Division:

Tests circuitry and switches for failures or malfunctions, isolates problems, and replaces worn or broken parts and makes repairs on electrical circuits and equipment such as generators, streetlights, fire alarms, heating and cooling equipment, commercial appliances, power control panels and distribution systems. Performs minor construction or alterations on facilities in order to install or modify electrical systems and equipment.

Utilities Division:

Evaluates, diagnoses, troubleshoots, installs, alters, repairs and maintains both high and low voltage motors, generators, switchgear, motor controllers, transformers, wiring systems, lighting, electronic components and other related equipment. Maintain, repair, and adjust pumps and pump control systems including VFD's, soft starts, and pump control valves. Design, install, maintain, repair, calibrate, and troubleshoot telemetry, communication systems, and control systems, including but not limited to PLC's, relay logic, SCADA systems, and HMI.

QUALIFICATION GUIDELINES

Education: High School diploma or G.E.D. is required.

Training and Experience: Completion of an accredited apprenticeship-training program in the electrical trade and two years of journey level electrician experience. Instrumentation experience desirable.

License: Possession of a valid California Class "C" driver's license at time of employment. Possession of a Class "B" Driver's License within one year of employment is required. Possession of a Class "A" is highly desirable.

Knowledge of: Electrical terms, materials, methods, machinery and equipment; knowledge of electrical codes, orders, ordinances and laws; knowledge of the fundamentals of electricity; knowledge of the City's electrical policies, regulations and

practices; knowledge of and skill in performing basic electrician's work such as leading in wires, making proper connections, locating trouble and repairing defective wiring;

Ability to: Plan tasks, estimate costs and perform installation maintenance and repair on all types of electrical wiring systems and equipment operating with voltage levels up to and including 480 volts; troubleshoot and diagnose malfunctions of electrical systems and controls to restore to specified operating standards; read and comprehend blueprints and schematic diagrams of circuitry; determine the scope and difficulty of a job based on an interpretation of oral and written instructions, schematic diagrams, sketches or blueprints; supervise helpers assigned to assist on various projects; demonstrate electrical safety procedures; and follow oral and written instructions.

PHYSICAL DEMANDS AND WORKING ENVIRONMENT

While performing the duties of this job, the employee is frequently required to stand; walk; use hands to finger, handle, or operate objects, tools, or controls; reach; climb; balance; stoop, kneel, crouch, or crawl; talk or hear; smell; and occasionally use arms, legs, and back to lift or move up to 100 pounds.

This position requires specific vision abilities, including close vision, distance vision, color vision, peripheral vision, depth perception, and the ability to focus on small objects.

The employee regularly works outdoors and may be exposed to variable weather conditions; occasionally works near moving mechanical parts and in high, precarious places, works in sewer lift stations, water plants, and chlorine rooms, and may be exposed to wet and/or humid conditions, fumes, toxic or caustic chemicals, risk of electric shock, and vibration.