

ELECTRICIAN

DEFINITION

Performs skilled electrical work in the installation, repair, service, alteration, and maintenance of District electrical systems and equipment.

TYPICAL DUTIES

Lays out, assembles, installs, tests, maintains, services, and repairs such items as conduits, meters, panels, control boards, sensors, motors, lights, fans, heaters, fire alarms, bell and buzzer systems, field lighting systems, clock systems, telephone systems, switchboards, and wall, floor, and ceiling receptacles.

Installs interior and exterior wiring for equipment and appliances and cuts, drills, and channels concrete floors and walls for conduits and related installations or repairs.

Bends and threads conduit and installs wires and cables in conduits.

Prepares reports pertaining to the testing and maintenance of electrical systems and equipment.

Prepares job estimates and sketches of work required.

May climb ladders and poles to install or repair lamps.

May assist a Senior Electrician in planning and developing modifications to existing electrical systems.

Performs related duties as assigned.

DISTINGUISHING CHARACTERISTICS AMONG RELATED CLASSES

A Craft person performs the journey-level work within their specific discipline in a designated Maintenance and Operations area.

A Senior Craft person assists a supervisor or manager in overseeing the overall respective operations in a designated Maintenance and Operations area.

An Apprentice Electrician assists an Electrician and performs duties gradually progressing from unskilled to skilled while learning the electrical trade by means of a program of on-the-job training and formal instruction.

SUPERVISION

General supervision is received from a craft supervisor or manager. Work direction may be exercised over lower-level personnel.

CLASS QUALIFICATIONS

Knowledge of:

Practices, materials, and tools of the electrical trade

Design, construction, installation, and maintenance of electrical equipment and systems

Federal, State, and local electrical codes, orders, ordinances, and regulations

Pertinent safety orders issued by the Department of Industrial Relations and safety practices relative to high voltage electrical systems

Ability to:

- Analyze malfunctions of electrical equipment
- Follow oral and written instructions
- Work effectively with others
- Read and interpret plans, blueprints, and specifications relating to electrical designs
- Operate electronic testing equipment such as meters and Personal Digital Assistants (PDA)
- Use and operate a computer, tablet, or other computing device

Special Physical Requirements:

- Ability to work effectively at heights of 50 feet or more on ladders, scaffolds, or poles and work under buildings and in confined spaces
- Adequate color perception to identify color-coded conductor wires
- Ability to stand, walk, bend, crawl, climb, reach overhead, crouch, kneel, balance, push, pull, and safely lift and carry items weighing up to 100 pounds in inspecting or assisting projects when needed
- Ability to work safely in confined spaces
- Adequate hearing to detect unusual sounds from transformers, fixture ballast, and fire alarms
- Normal sense of smell to detect burning transformers, breakers, conductors, switches, ballast, and relays

ENTRANCE QUALIFICATIONS

Education:

Graduation from high school or evidence of equivalent educational proficiency supplemented by courses in electrical theory and electrical construction code from a trade school.

Experience:

Successful completion of a recognized electrician apprenticeship program or five years of experience in the installation, alteration, and repair of commercial and industrial electrical wiring systems and equipment, of which one year must have been at the journey-level.

Special:

- Employment is subject to medical clearance.
- Positions in this classification are subject to pertinent provisions of the General Industry Safety Orders of the California Code of Regulations regarding protective equipment when exposed to hazardous materials, including but not limited to, asbestos and lead.
- A valid driver's license to legally operate a motor vehicle in the State of California and use of a motor vehicle.

This class description is not a complete statement of essential functions, responsibilities, or requirements. Requirements are representative of the minimum level of knowledge, skill, and/or abilities. Management retains the discretion to add or to change typical duties or a position at any time.

Revised
09-22-14
LKD

Updated
04-03-25
Transportation
Language Only