

## ELECTRICAL CRAFT HELPER, 3799

Summary of Duties : Assists skilled journey-level craft workers engaged in one of the electrical trades by performing a variety of semiskilled or manual duties involved in the construction, installation, maintenance and/or repair of electrical systems, facilities, and equipment; and does related work.

Distinguishing Features : An Electrical Craft Helper is the entry level class to a wide variety of electrical trades. An employee of this class normally assists an electrical journey-level worker by performing both manual and semiskilled work which is essentially routine and repetitive in nature, and normally conducted under direct supervision. The work involves exposure to the hazards of traffic, ladder work, and crane operation as well as working near energized high voltage lines and equipment.

Some positions of Electrical Craft Helper may be designated as an apprentice in an electrical trade. Employment as an apprentice is limited to generally three years during which time the apprentice is expected to qualify for promotion.

Examples of Duties : Passes tools, materials, and equipment to journey-level workers; cuts and threads conduit and installs connectors; measures, cuts, assembles, and pulls wire; skins wire and insulates, solders, and tapes connections; replaces junction box and outlet covers; drills holes in concrete, metal, wood, fiber, and other materials; taps holes and installs anchor plugs; assembles and holds fixtures for installation; moves and places ladders, scaffolds, and rigging; opens and closes switches and circuit breakers; replaces fuses, plugs, light globes, and florescent tubes; assists in testing circuits;

Assists in maintaining, repairing, and rebuilding electric motors, generators, governors, voltage regulators, transformers, condensers, oil circuit breakers, disconnect switches, control apparatus, and communication apparatus by disassembling and assembling equipment and cleaning parts; replaces and adjusts brushes and contacts on the less complicated equipment; cleans and stacks iron laminations; applies varnish and insulating compounds to coils and windings and bakes them in an oven; reads instruments and observes indicator signals; assists in winding coils and armatures, undercutting commutators, testing windings, installing bus bars, assembling switchboards and control panels, and testing communication apparatus; installs bearings, and drains, filters, and replaces oil; may assist in the installation, maintenance, and repair of passenger and freight elevators and equipment; assists in the repair of refrigeration and air-conditioning equipment;

Cleans and oils moving electrical equipment and appurtenant machinery; paints motors, frames, and equipment parts; cleans insulators; handles heavy parts and may operate an overhead crane; cares for tools and equipment; sweeps and cleans working area; may drive a truck, truck-mounted tower platform, or truck-mounted crane; may work from ladders, scaffolds, or rack structures; may operate or assist in the operation of passenger gantries and baggage conveyors;

Digs trenches; jacks conduit under sidewalks and roadways; constructs foundations for traffic signal posts; assists journey-level workers in the installation, wiring and maintenance of traffic signals;

Works on line construction, patrol, or trouble work by digging and filling pole and anchor holes, assisting in erecting or removing poles and anchors, drilling holes and making up crossarms, hoisting tools and materials with a hand line, pulling lines and guy wires into position with block and tackle, placing traffic warning signals and flares, loading and unloading materials and equipment, assembling and dismantling material and equipment, and cleaning up when work is completed; keeps routine records;

Removes and replaces glassware in streetlights; cleans and repairs street lighting equipment in the shop; reconditions used poles and other line materials; removes birds to prevent damage to electric lines and equipment; assists in installing and servicing electric wiring and communication equipment; may operate a truck winch in hoisting poles and stringing wire;

Assists journey-level workers by cleaning sleeves, heating metals and insulating compounds, taking measurements, cutting cables to length, cleaning and filing lead sleeves, and lowering equipment and materials into manholes and vaults; assists in pulling cables through duct lines and running galvanized conduit, in inspecting, treating, and replacing oil installed cable joints and equipment, in installing oil reservoirs and pressure tanks in manholes and vaults, and installing and removing meters and services; operates single pole oil switches; places traffic warning signals; maintains work areas in a clean and orderly condition; maintains stock of supplies, tools, and equipment on trucks; inspects underground manholes and vaults for presence of water and gas, and for the condition of electric equipment; operates portable and stationary pumps to remove water from manholes and vaults; cleans rust from, and paints, underground equipment; reports condition of equipment needing repairs; locates service connections for customer's electricians; fireproofs primary cables; Prepares, pulls, and feeds high and low voltage conductors and cables; measures, cuts, reams, threads and bends conduit manually or using hydraulic equipment; participates in the installation, removal, assembling or dismantling of electroliers and related appurtenances; digs trenches for conduit installation and holes for electrolier foundations; drives; loads and unloads trucks; operates truck mounted or portable compressor and related pneumatic tools; breaks out concrete foundations and sidewalks; loads and unloads derrick truck with

equipment and material; handles, uses or passes on hand tools; places traffic delineators at job sites; and may occasionally be assigned to other duties for training purposes or to meet technological changes or emergencies.

Qualifications : A general knowledge of the elementary principles of electricity; a general knowledge of tools and materials commonly used in the electrical trade; a general knowledge of the hazards of working on ladders and around energized equipment and of the necessary safety precautions to follow; a general knowledge of basic arithmetic and spatial relationships; the ability to use hand tools; the ability to understand and follow instructions; and a high degree of mechanical and electrical aptitude.

Graduation from high school is desired but not required for Electrical Craft Helper.

License : A valid California driver's license may be required.

Physical Requirements : Strength to perform average lifting up to 70 pounds and occasionally over 70 pounds; body agility and equilibrium involved in activities such as climbing and balancing under precarious conditions; arm, hand and finger dexterity with both hands involved in activities such as reaching, handling, and feeling; good hearing ability; and good eyesight.

Persons with medical limitations may, with reasonable accommodations, be capable of performing the duties of some of the positions in this class. Such determination must be made on an individual basis in light of the person's limitations, the requirements of the position, and the appointing authority's ability to effect reasonable accommodations to the person's limitations.

As provided in Civil Service Commission Rule 2.5 and Section 4.55 of the Administrative Code, this specification is descriptive, explanatory and not restrictive. It is not intended to declare what all of the duties and responsibilities of any position shall be.