



## **ELECTRICIAN**

FC: MA510  
PG: MW III

PC: 301  
BU: 01  
January 2000

### **DEFINITION**

Under general supervision, performs skilled installation, preventive maintenance, repair and modification of electrical systems and equipment in a wide variety of District facilities; performs related work as assigned.

### **CLASS CHARACTERISTICS**

This is a journey level classification performing the full scope of skilled installation, maintenance and repair work on both the traction power system (which powers the revenue vehicles) and all other high and normal voltage equipment and systems required for the operation of District facilities. This class is distinguished from all other journey level maintenance classes in that the work is related specifically to the electrical trade.

### **EXAMPLES OF DUTIES**

Following a pre-established schedule, performs preventive maintenance, testing and adjustment of all electrical systems, equipment and components required to power the rail vehicle system; performs preventive maintenance, testing and adjustment of all electrical systems, equipment and components found in offices, shops and other District facilities; installs, maintains, repairs, and modifies a wide variety of industrial systems and equipment such as 110 volt to 4180 volt systems, 1 KV to 34.5 KV controls, transformers, motors, motor starters and controllers, generators, lighting and back-up emergency lighting systems, cathodic protection systems, fire alarm systems, and lead/acid and nickel cadmium battery powered equipment; installs conduit and pulls wires for motors, control panels, lighting fixtures and other purposes; troubleshoots and diagnoses problems in a variety of electrical equipment and performs repairs as required; suggests improvements and works with engineering and other maintenance staff regarding modifications; uses diagnostic test equipment and precision measuring devices in the course of the work; reads and interprets diagrams, engineering drawings, manuals, schematics and work orders; measures, tests and inspects completed work to confirm adherence to specifications; maintains records of work performed and parts and materials used; operates District vehicles to reach equipment to be serviced including specialized high-railed vehicles used on tracks; may operate cranes or other equipment as required for repair; follows proper safety procedures; answers patron questions regarding work activities; requests supplies through supervisor or from stock.

### **QUALIFICATIONS**

#### **Knowledge of:**

Methods, equipment, tools and materials used in the installation, maintenance and repair of varied industrial electrical equipment and systems; use and care of power and hand tools of the trade; use and operation of electrical measuring and testing devices; trouble-shooting and diagnostic

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techniques; shop arithmetic as required for the electrical trade; safe working practices; applicable codes and regulations.

### **Skill in:**

Diagnosing operational problems in heavy industrial electrical equipment and systems and determining parts and labor required for repairs; performing preventive maintenance on electrical systems and equipment; reading and interpreting engineering drawings, wiring diagrams, manuals and work orders; working effectively both independently and with a crew; understanding and following oral and written directions; maintaining accurate records of work performed and materials used; establishing and maintaining effective working relationships with those contacted in the course of the work.

### **Other Requirements:**

Must possess and maintain a valid California Class B driver's license and have a satisfactory driving record. Must be physically capable of working in confining work spaces and willing to work occasional emergency overtime; must be able to walk long distances over various terrain including, but not limited to, uneven, wet, or inclined ground; must be able to climb stairs and ladders to a height of 90 feet; must be able to lift up to 100 pounds to waist level; must be able to work overhead with hand and power tools; must wear respirator.

### **MINIMUM QUALIFICATIONS**

Completion of an apprenticeship in the electrical trade and one year of journey level experience in the installation, maintenance or repair of varied electrical systems and equipment. Experience with high voltages and industrial or plant equipment are desirable.