JOB DESCRIPTION
Electrician
Code Number: 46006

GENERAL PURPOSE
Under general supervision, performs skilled electrical work in the maintenance, installation and repair of electrical equipment and systems used in the production, treatment, storage, transmission and distribution of potable and reclaimed water and the collection of wastewater; and other skilled work in the overall maintenance of designated facilities.

DISTINGUISHING CHARACTERISTICS
Electrician is a skilled, journey-level classification. Work is characterized by considerable judgment and discretion when laying out and performing assigned work.

This classification differs from the Controls Technician classification in the skill level required and the complexity of assigned work. This position is intended to assist the Controls Technician who will perform the more complex and analytical electrical and controls tasks.

ESSENTIAL DUTIES AND RESPONSIBILITIES
The duties listed below are intended only as illustrations of the various types of work that may be performed. The omission of specific statements of duties does not exclude them from the position if the work is similar, related or a logical assignment to this class.

Installs new lighting circuitry and fixtures, outlets, switches, relays, circuit breakers, power disconnects, and circuit panels; installs new or replaces various industrial electrical components such as transformers, motors, and devices that operate from low to 600 volts.

Tests, troubleshoots, locates, repairs and performs preventive maintenance on a variety of industrial electrical systems, components and devices; utilizes appropriate electrical testing equipment (e.g., amp probe, voltmeters, etc.).

Repairs and replaces defective parts in motors, generators, storage batteries, solar-generating equipment, switchboards, conductors, switches and other industrial electrical fixtures in making additions, extensions and modifications in electrical systems; installs,
maintains and repairs electromechanical, and electrical components of equipment and machinery, including transformers, pneumatic and hydraulic operated devices.

Performs (industrial and commercial) electrical and electrical estimating on new construction.

Performs preventive maintenance and new installations on various electrical systems, fan motors, valves, compressors, pump appliances, starter motors, public address systems, air handlers, HVAC controls and ventilating equipment.

Disconnects electrical sources (up to 600 volts), uses lockout/tag-out procedures and current OSHA requirements; reconnects and operates equipment at panel for maintenance purposes.

Bends and installs conduits, wires, pull boxes, switchboards, and switches required in making additions, extensions or alterations in industrial electrical systems; installs motors, controls and transformers.

Modifies motor control equipment circuits, planning, laying out and wiring the work; reads and interprets blueprints, schematics and wiring diagrams; upon completion, draws modifications made to the system.

Schedules and coordinates work with other departments and contractors as needed.

Plans and lays out jobs from blueprints, drawings, sketches or verbal instructions; maintains records in the form of blueprints, plans and specifications for industrial electrical systems and other related devices.

Responds to emergency situations as necessary.

Performs related duties as assigned.

**DESIRED MINIMUM QUALIFICATIONS**

**Knowledge of:**

Principles, practices and techniques applicable to the maintenance, installation, and repair of industrial electrical equipment common to a large waterworks system; local and national electrical codes applicable to the maintenance, installation, and repair of designated facilities; related safety precautions and requirements.
Use applicable testing equipment in the diagnosis of facility maintenance and repair issues and to take necessary corrective action; read and interpret plans, specifications and manuals; coordinate work assignments with other departments; work in confined spaces; exercise sensory acuity in related diagnostic and repair work; operate a motor vehicle and other work related equipment such as trenchers, boom trucks and forklifts; establish and maintain effective working relationships with those contacted in the course of work; follow and apply written and oral work instructions; communicate effectively, orally and in writing; make sound independent judgments within established guidelines.

**Training and Experience:**

A typical way of obtaining the knowledge, skills and abilities outlined above is graduation from high school, or G.E.D. equivalent; and two years of journey-level experience in the installation, maintenance and repair of industrial electrical equipment and devices common to large waterworks systems; or other combination of training and/or experience which can be demonstrated to result in the possession of the knowledge, skills, and abilities necessary to perform the duties of this position.

**Licenses; Certificates; Special Requirements:**

A valid California driver’s license and the ability to maintain insurability under the District’s Vehicle Insurance Policy.

California Certified Journeyman Electrician Card desirable.

**PHYSICAL AND MENTAL DEMANDS**

*The physical and mental demands described here are representative of those that must be met by employees to successfully perform the essential functions of this class. Reasonable accommodations may be made to enable individuals with disabilities to perform the essential functions.*

**Physical Demands**

While performing the duties of this job, the employee is regularly required to use hands to finger, handle, feel or operate objects, tools or controls; and reach with hands and arms. The employee frequently is required to stand and talk or hear; walk or sit; climb and work up to heights of 40 feet; stoop, kneel, crouch or crawl.
The employee must occasionally lift and/or move up to 50 pounds. Specific vision abilities required by this job include close vision, distance vision, color vision, peripheral vision, depth perception and the ability to adjust focus.

**Mental Demands**

While performing the duties of this class, the incumbent is regularly required to use written and oral communication skills; read and interpret data, information and documents; analyze and solve problems; use shop mathematics; observe and interpret situations; deal with changing, intensive deadlines; and interact with officials and the public.

**WORK ENVIRONMENT**

*The work environment characteristics described here are representative of those an employee encounters while performing the essential functions of this class. Reasonable accommodations may be made to enable individuals with disabilities to perform the essential functions.*

The employee frequently works outside in a wide range of weather conditions, near moving mechanical parts, and on slippery and uneven surfaces. Employees may, at times, be required to wear appropriate personal protective equipment including respiratory protection while performing work in environments that could have the potential to contain wet or humid conditions, vapors or particulates, hazardous chemicals, and the risk of electric shock. The noise level in the work environment is frequently loud.

Incumbents are not subject to 7-day standby roster requirements, but will be subject to weekend work and 24-hour call out.

**FLSA DETERMINATION:**  Non-exempt.